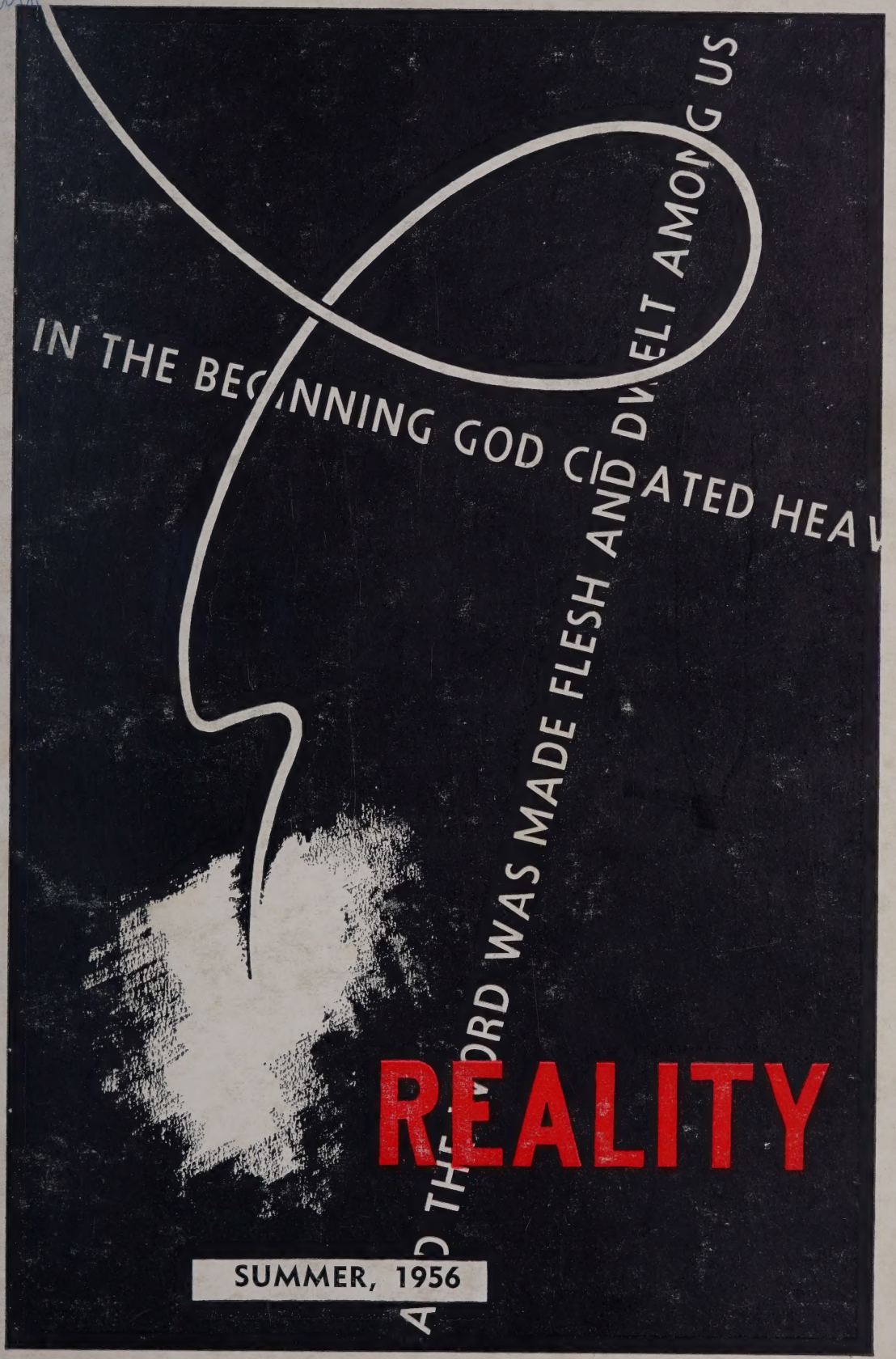
IN THE BEGINNING GOD CREATED HEAV
AND THE WORD WAS MADE FLESH AND DWELT AMONG US
REALITY
SUMMER, 1956

REALITY

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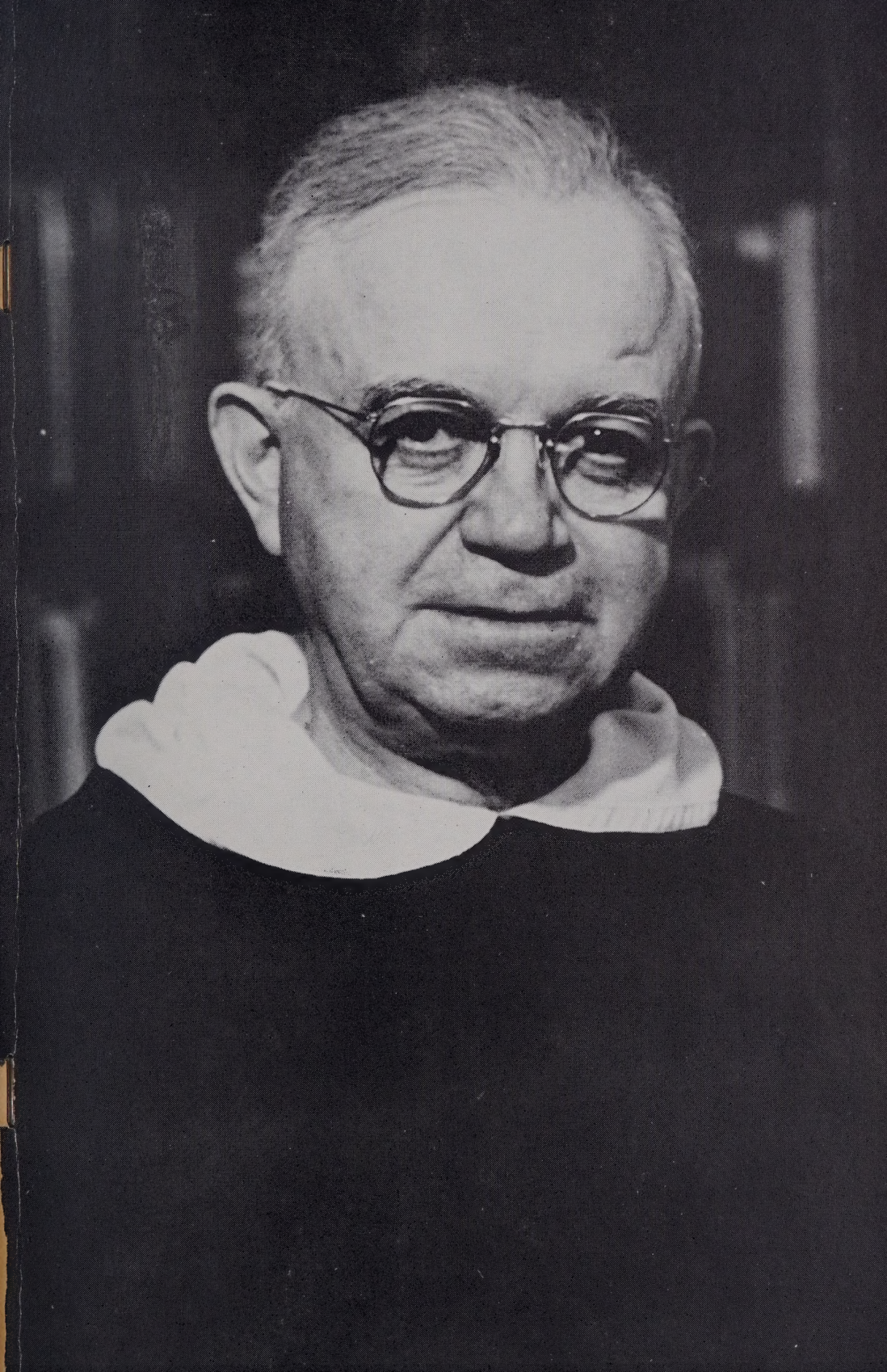
cum permissu superiorum

God, the Highest Truth, has created and guides human intellect, not that it may daily oppose new truths to rightly established ones but rather that having eliminated errors which may have crept in, it may build truth upon truth in the same order and structure that exists in reality, the source of truth.

Pius XII

Encyclical Humani Generis.



VERY REVEREND EDWARD L. HUGHES, O.P.
Provincial, Province of St. Albert the Great

DEDICATION

Youth seeks an ideal. We have every reason to believe that it is the splendor and sublimity of the Dominican ideal which is responsible for the providential increase of vocations to the Province of St. Albert the Great. Yet more than ideals must influence the minds and hearts of youth. The young man considering his future, finding his calling in the Dominican way of life, seeks proof that this ideal energizes in the practical lives of the sons of St. Dominic.

In the past eight years of the Province under the leadership of Father Edward L. Hughes, the student brothers have observed and genuinely admired the zeal and tireless apostolic labors of their older brethren. At a time when the number of vocations had dwindled and when every man had to do the job of several, we have seen our brethren sacrifice their own desires for a more perfect community life and a more exact fulfillment of the monastic observances in order to provide for later generations—to give to us what the conditions of their day made impossible to some extent for them.

Among those who have devoted themselves generously to laying firm foundations for future Dominican activity, no one surpasses our present Provincial. No one has better claim to the gratitude and loyalty of the student brothers.

He it was who courageously carried to completion the novitiate of St. Peter Martyr, and on faith alone undertook the monumental priory of St. Rose of Lima. For his strength in material accomplishments he unfailingly sought refuge in the undeniable benevolence of St. Jude Thaddeus. To him the gathering together of Dominicans from all over the world and the presence of the Master General on June 4 for the dedication of the new House of Theology was public acclaim not for himself but for St. Jude and the faith placed in that Apostle by the Province.

Nor have his thoughts been only upon the physical needs of an expanding religious family. Desperate demands for manpower, while causing many a worry, never made him fail to look ahead. Friars were sent to Europe and elsewhere for advanced studies, that the scholastic standards of the province might keep pace with the material development. New colleges were brought into the sphere of Dominican influence. The province undertook to organize and maintain the Institute of Spiritual Theology and the Albertus Magnus Lyceum for Natural Sciences.

The quarterly, *Cross and Crown,* was founded and became in a few short years a successful organ of spirituality. To this was soon added the "Cross and Crown Series of Spirituality," a library of classical and modern spiritual writings. Father Hughes approved and encouraged the *Aquinas Library* and the *Priory Press,* with their acknowledged potential in the field of Catholic thought in the United States. He it was who founded and guided with keen interest our student publication, *Reality.*

Imitating St. Dominic in the dispersal of the first friars, Father Hughes did not refuse the invitation of the Holy See to enter upon missionary endeavors in Nigeria and Bolivia. He also set himself about the task of making the saintly life of Father Samuel Charles Mazzuchelli more widely known and appreciated, a fact certain to redound to the glory of the Order and of the Province.

In all his efforts, as befits the prudent administrator, he sought the common good of all the brethren from laybrother to priest; every opportunity was used by him to direct the members of the Province toward the fulfillment of the Dominican ideal.

This is what the youth of today seeks: not historical platitudes, not the conjuring up of past achievements, but a living example, a vivid representation of St. Dominic himself—of his zeal, of his fidelity to the Church, of his selflessness, and above all, of his sanctity. We look back on these eight years as a very definite proof that the Dominican ideal is not extinct, but lives in men under whom we have been privileged to study and in those with whom we will one day work among souls.

By the example of Father Hughes, to whom we in filial affection dedicate this special issue of *Reality,* may we all, priests and brothers, be inspired to achieve the one thing necessary—that Dominic live again in us.

The Student Brothers

SAMUEL CHARLES MAZZUCHELLI "BUILDER OF THE WEST"

THE YEAR WAS 1827 and the United States was looking west. Trappers told of the land, broad and black, and the pioneer farmer of Virginia and New York set out to have it. Threading down along the Ohio and Erie Canal, thronging wide Pennsylvania valleys southwestward through the Cumberland Gap, men and their families rolled into Ohio, hewed their trees and cut their land and saw others go by, to Kentucky, to Indiana and beyond. And where the pioneer's axe was heard, the Red Man was seen no longer. He moved quietly back into the quiet, and the West moved still further west.

Among the pioneers were many of Catholic faith. As they took root and began to grow, they gave promise of a sound, sturdy church. But Bishop Edward Fenwick of Cincinnati and the other bishops of western dioceses knew it was a promise which could easily be choked. The cockle-seed was indifference, the seed bed was this people's very remoteness. There was an oppressive, geographic cruelty about the situation; need lay heavy upon thousands of square miles, need for priests, need for churches, need for everything. The bishops had nothing. They could only turn to Europe and beg for help. So it was that in 1827, Msgr. Frederick Rese was searching through France and Italy, searching out missionaries to Cincinnati's regions of dense unknown. He found only one man, but that man was to be perhaps the most remarkable missionary the west lands would ever see: Samuel Charles Mazzuchelli, priest of the Order of Preachers, "Builder of the West."

On November 4, 1806, the Milanese were celebrating their patronal feast of San Carlo Borromeo. Close by, on the Via San Clemente, Rachel and Luigi Mazzuchelli had extra cause for their celebration. They had

witnessed that day the birth and rebirth of their sixteenth child; Samuel Charles was possessed of the faith. The first six years of the boy's home life, his subsequent eleven school years in Switzerland, were spent in this same encompassing spirit of faith, laced strong by troublous times. His decision at seventeen to enter the Dominicans seems to have surprised his father. But the elder Mazzuchelli was too considerate a man to stand in his son's way. Samuel became Brother Augustine at Faenza on October 6, 1823.

Very little is known about Mazzuchelli's next several years, save that they were passed at Santa Sabina. What is certain is that Msgr. Rese was crisscrossing Europe in 1827, voicing Bishop Fenwick's call for aid; that he stopped in Rome to make a special appeal to his bishop's brothers in religion; that he found Brother Augustine very willing to offer himself, subject to the will of his superiors, for the American missions. Mazzuchelli's *Memoirs* tell of his parting:

> In 1828, when obedience destined our missionary for the United States of America, he left Rome and visited his native city of Milan after five years' absence. Then the farewell to father, beloved sisters, and dear brothers was made with all that tranquillity which the certainty of doing the will of God could secure . . . he left his native land with little hope of ever seeing it again . . . In truth we have no lasting home on earth.[1]

Mazzuchelli was aboard the *Edward Quesnel* on October 5, booming under full breeze into an autumn sea. When the ship furled sail in New York five wind-whipped weeks later, he stepped ashore in the country of his choice. An overland journey by stage and steamboat soon brought him to Cincinnati and the welcome of Msgr. Fenwick, his bishop and provincial. It was under Bishop Fenwick's tutelage, in the nearby convent of St. Joseph, that the young religious spent his next several years completing theology and learning to preach in both French and English. Soon the day he had come for arrived. On September 5, 1830, he knelt under his bishop's hands, a priest of God forever.

Bishop Fenwick was not lacking work for his newest missioner. His diocese extended not only to the faithful in the established states of Ohio and Michigan, but even to those few, scattered souls in the Wisconsin Territory. Once part of a vast fur empire, this territory found its one

[1]Samuel Charles Mazzuchelli, *Memoirs Historical and Edifying of a Missionary Apostolic of the Order of St. Dominic Among Various Indian Tribes and Among Catholics and Protestants in the United States of America* (Chicago: W. F. Hall Printing Co., 1915), 12.

hundred and fifty-year-old way of life relatively unchanged by the pioneer movement further south. Its land was a great quilt of long silver lakes and dark-green pine patches, dotted here and there by small French Canadian villages: a huddle of cabins, a trading post and the frowning fort. The traders in these settlements were mainly Catholic. But lack of priests had nearly nominalized their faith. Chippewas, Ottawas, and Menominees ranged through the in-between land; most of them had never seen a black robe. The wilderness had simply swallowed up missionary activity. Could Bishop Fenwick presume to send an inexperienced twenty-four-year-old to such conditions as these? He seems not to have hesitated in the least. The Indians would do well by a man who could later say in his *Memoirs:*

> Of all the duties of the priesthood, that of the propagation of the faith among the peoples who know not of it is the most excellent and meritorious.

The first of Fr. Mazzuchelli's priestly duties was the island parish of Mackinac, guarding the juncture of Lakes Huron and Michigan, humping up out of the straits like a great turtle. His flock would be some five-hundred Canadians, Indians, and half-breeds; his church, the little wooden structure of St. Anne's, then probably over one hundred years old. These people had waited a long time for a resident pastor and were overjoyed to see Fr. Mazzuchelli. Yet the wait had taken its toll. Their enthusiasm passed, apathy quickly regained its well entrenched place among them. By Christmas, only a few had received the sacraments of penance and Holy Eucharist. So the young missioner settled himself down to effect a change. He was soon given valuable assistance. During the first few weeks of January, the local Presbyterian minister began a series of Sunday evening lectures. As his stated purpose was to disprove the principle doctrines of the Catholic faith, he gave the Catholics a special invitation. Father Mazzuchelli was not intimidated. He too urged his people to attend; he even went himself. Then he began a series of counter-lectures, and the Island buzzed with excitement. It was a new experience for the Catholic population. The Presbyterians had possessed the only school, the only man of letters on the island. Catholics were ranked as uneducated and socially inferior. But their new defender gave them a certain degree of respectability. When the minister chose not to attend the Catholic gatherings, the moral victory was complete. Fr. Mazzuchelli's Easter Mass was attended that year by three new converts and a large, attentive flock, now truly the 'faithful.'

The unlocking of that first winter's ice around the island and the loosing of spring winds seemed to remind Fr. Mazzuchelli of other parishes and their needs. He began to thrust out to them, north and west. At Sault Ste. Marie he gathered the people under a huge oak alongside the onrushing rapids and spoke to them of the unchanging God. At Green Bay he spent considerable time establishing a mission school, and supervised the work on a new parish church from the first spade of dirt to near completion. It is not difficult to discern the stamp of greatness in the action of these first months; there is a sureness which is unusual for so inexperienced a missioner. To at least one Protestant who saw Fr. Mazzuchelli during these next years, he was something of an anomaly. How was one to reconcile a notion of Italian softness and refinement with this rather sturdy young priest, tramping on snowshoes back from a sick call, celebrating Holy Mass in an open hut of branches and bark?[2]

But the story of Fr. Mazzuchelli's five years in the old Northwest is chiefly the story of his work among the Indians, and of his dawning awareness of their plight. Book I of the *Memoirs* tells that story. It hints at Fr. Mazzuchelli's initial enchantment with the Indian, with his uncomplicated nature, his keen knowledge of wildlife. It tells how he had stood in admiration at the Indian's strong family ties, at his deep reverence for the Great Spirit; how as an understanding apostle of Christ he could envisage a transformation of this life of nature. It would not be a violent upheaval to the white man's civilization:

> And besides, to what does it all really aim—this world of books, of studies, of gold, of grandeur, of elegances of life, of progress, whether civil, literary or social? Their one object is to attain a certain degree of happiness. But the Catholic Indian is put in possession by his religion of that moral and social felicity which not Solomon himself with all his wisdom and magnificence could enjoy.

The priest had seen the evils worked upon the Indian by his contact with the white man: drunkenness, cruelty, general loss of moral sense. Yet he believed in the Indian's basic simplicity and religiousness. He believed the Indian would make a constant Christian. Indeed, he had witnessed such a change among the Ottawas at Arbre Croche. Many of the tribe had given up their nomadic ways to settle in a small agricultural community. Their homes were all close to the church; their lives soon became centered around it. It was to establish such faith-centered groups that Fr. Mazzu-

[2]Persis Skinner in *The Christian Advocate and Journal,* as quoted by Soeur Rosemary Crepeau, O.P., in *Un Apotre Dominicain aux Etats-Unis, Le Pere Samuel Charles Gaetan Mazzuchelli* (Paris: J. de Gigord, 1932), 34.

chelli had worked continually. Many months were spent with the Winnebago tribe in southern Wisconsin where he translated a prayerbook into their native tongue. But his chief work was among the Menominees around Green Bay, and here he began to achieve no small measure of success. His mission school was thriving after only a few years. In January of 1834 about one-fourth of the tribe had been converted.

Yet little by little the missionary found himself forced to accept the undoing of his work well done. In 1834 he requested $2100 from the government to carry on the mission school. The request was undersigned by many chiefs of the tribe and was due to them in justice. The money was given to a nearby Anglican mission. In 1834 he was refused in a similar request for the Winnebagoes near Prairie du Chien. Such prejudice might have been overcome in time. But there was no time. For it soon became evident that any work among the Indians was doomed to failure; the Indians were a vanishing nation. Bought off their native soil, given easy money and easier exchange for whiskey, the tribes were routed out to strange lands, lands whose ways they did not know. Disorder was driven in so deeply that Fr. Mazzuchelli saw "more powerful means would have to be employed than those at the command of one solitary priest." He himself "could do nothing but scatter a few seeds of faith here and there." There was nothing more to be done.

> If the Lord permitted that, in its first establishment in these regions, religion should be deprived of the means which human wisdom considered necessary to its maintenance, we ought to adore His inscrutable decrees. . . .

It was 1835 and Father Samuel wished to consult his provincial about future labors. Early in April he began the journey from Prairie du Chien to Somerset. As he rode down along the hills of the Mississippi, he saw many signs of recent settlement. Newly built homesteads lay back from the river in wide, abutting valleys. Miners' shanties perched atop broad-faced bluffs, surrounded here and there by mounds of clay and gray dolerite. The missionary was obliged to stop at all the larger settlements to gather information for Bishop Rosati of St. Louis. He soon became aware that these settlers were of a different character from those of the preceding decade. They were immigrants, Irish mostly and German. Political and economic earthquakes in Europe had sent them tiding across the Atlantic; many had continued west as far as the Mississippi. Now, possibly for the first time in their lives, they were without a priest. At Dubuque and Galena, mining villages near the Illinois northern boundary,

six hundred abandoned Catholics begged him to stay. Fr. Mazzuchelli had to tell them he was not free to stay, but he promised to return soon. Three months later he did return. He returned to eight of the most intensively active years of his life, to that phase in his labors for souls for which he was most famous, and for which he has been called "Builder of the West."

Here too the *Memoirs* give the pattern of action. Starting in Galena, crossing over to Dubuque, and then working out into the entire area of southwestern Wisconsin, northwestern Illinois, and eastern Iowa, Father Mazzuchelli bought property, designed and built churches, and organized parishes with an almost incredible speed. A letter shows us the problem he faced:

> This country tends to people itself with an extraordinary rapidity, and if the Catholic religion is not established now, it will be almost impossible to establish it here in a few years.[3]

His labors during these years were immense: traveling constantly, sometimes by canoe, sometimes by sledge, most often on horseback; baptizing and anointing; 'reproving, entreating, rebuking.' His poverty was absolute:

> Now the church in the United States is generally the poorest of the poor . . . example contributes more than anything else to excite the generosity of the faithful towards the temple of God. It would be of the very greatest advantage to one occupied in spreading the faith if he were bound by the vow of poverty. . . .

He was a pioneer priest in a pioneer country; he had to face the hardships of that life:

> Experience has taught our missionary that the reestablishment of religion in the regions appointed by divine providence has required more sacrifice, more time, more patience, more burning words than were required for the conversion of the Indians.

Yet all these difficulties were as nothing in the face of one hard fact:

> In truth, it is not the lost sheep who runs after the shepherd, it is rather the shepherd who runs to and fro in search of the lost one to bring it back to the fold.

While Fr. Mazzuchelli worked, the American bishops watched the number of Catholics in the Iowa territory rise. In their Third Provincial Council in Baltimore in 1837, they deemed it necessary to establish the territory as the Diocese of Dubuque, and elected Mathias Loras as its

[3]Letter, Mazzuchelli to Fr. Hyacinth Cippoletti, Master General, July 14, 1836, as quoted in *Un Apotre Dominicain, op. cit.*, 127.

first bishop. To the missioner, so alone in his apostolate that he had to travel five hundred miles to make his annual confession, the coming of Loras was a cause of great joy. The bishop too had reason to be thankful. For when he finally reached his see in 1839, he found parishes established in close-knit national groups, the people well instructed, his own cathedral completely built and ready to be consecrated.

As Loras' Vicar-General, Father Samuel continued to mould parishes for the next five years; his hand did not halt now that it was guided, but grew stronger and more expert. He was immensely popular with the Irish. Scholar, artist, architect, gentleman: he was all this and more to them, because he was their priest. The priest's *Memoirs* express a regard for the Irish which is no less tender. Fr. Mazzuchelli's popularity throughout the diocese is well shown in a letter written by Bishop Loras during this time. The letter also serves to throw an interesting sidelight on the independence of the Irish miner.

> I have urgent need of Fr. Mazzuchelli for a thousand things. . . . He is the only one who is able to preach well in English. The people of Galena, although I have been sending him there almost every Sunday, are murmuring audibly. The Catholics who are very numerous are refusing to finish their church through pique and are attending the Protestant churches. They gaze upon me with a wicked eye, pretending that I have taken from them Fr. Kelly whom they cherish.[4]

In late 1842, the prelate suggested a change for his tiring missioner: a journey to the Propagation of the Faith Headquarters in France in interest of the diocese, a restful return to Italy. Father Samuel took grateful leave of Loras the next spring. Yet when he had carried out his orders faithfully, he did not rest. There was another interest he wished to attend to, an interest very close to his heart. During his first days in Dubuque, Fr. Mazzuchelli had written to the Master General of his Order:

> Up to this time, it has been impossible for me to work for the Order; but now that your Paternity has greatly encouraged me, I will do all I can in this direction. . . . It would be a good thing to create another province on the west bank of the great Mississippi River.[5]

As more and more immigrants had crowded to the banks of that Mississippi, the idea of a new province had moved from the realm of a good

[4]Letter, Loras to Bishop Rosati of St. Louis, June 7, 1839, as quoted by M. M. Hoffmann in *The Church Founders of the Northwest* (Milwaukee: Bruce Pub. Co., 1937), 113. Note that the Irish adopted their priest as Fr. Matthew Kelly.

[5]Letter, Mazzuchelli to Fr. Hyacinth Cippoletti, July 14, 1836, as quoted in *Un Apotre Dominicain, op. cit.*, 128-9.

thing to that of a distinct possibility. Now the missionary judged it was not only possible, but necessary. His plan had crystallized. He wished to establish Provincial headquarters somewhere in the Iowa-Illinois-Wisconsin area, preferably at Galena. He wished to found a college there for the young men of the area. Above all, he wished to extend the influence of his Dominican Order in the Midwest. He felt that none could counteract individualistic tendencies among the people so well as priests "bound to the duties of their vocation by means of the vows and the discipline of religious orders."[6] Fr. Mazzuchelli's proposal rested on the experience of fourteen years. If it was approved, he would spend himself for the rest of his years to carry it out. In September of 1843, he submitted the proposal to the Master General and the Holy See.

Approbation came quickly. Fr. Mazzuchelli acted upon it even more quickly. As soon as he had been given the necessary ecclesiastical powers, he set about raising funds. He appealed to relatives and friends; he wrote the *Memoirs* to stir a Milanese reading public to greater generosity. He received a pledge of assistance from the Master General: he would be sent several priests as soon as they could be spared. Ten months later Fr. Mazzuchelli left Italy. September 12 found him back in Galena. The year was 1844.

But his plans to establish himself at Galena did not materialize; Bishop Quarter of Chicago could not spare the revenue from St. Michael's Church. So Fr. Mazzuchelli looked northward to Wisconsin, to Sinsinawa Mound. A high, gently wooded hill, the Mound had served for years as a landmark to surrounding farmers. Fr. Samuel had built a church there in 1842. The Mound was still within the area he wished to serve; it would make a fine beacon point for his college. With permission from the Bishop of Milwaukee, the Commissioner Provincial of St. Charles Province bought the land for $6500.

There had already been one house on the property. This immediately became the Convent of St. Dominic. The rest had to be built; so the builder set to work. There was first a parish school, entrusted to his care by Bishop Henni; there was the disassembling, transporting, re-erecting of a nearby church; on August 4th, amid a bustling crowd of priests, reporters, and curious settlers, there was the consecration of the new church to St. Dominic; and on the following day there was the solemn reception of the province's first two novices: Father Samuel's nephew, Father Francis

[6] *Memoirs, op. cit.*, 348.

Mazzuchelli, and Mr. Joseph Polking. The refurbishing of the convent was begun soon after, looking to an enlarged novitiate. Then too, it would soon have to house a faculty; for the culmination of the entire building project was to be the college. The cornerstone of the college was the cornerstone of Fr. Mazzuchelli's hopes. When that cornerstone was laid on March 24, 1846, and classes in the College of St. Thomas were begun the next fall, Fr. Mazzuchelli's province was at the peak of its success.

But it was not so for long; and the change came with the coming of his long-awaited help. Two priests and a lay brother, Italians like himself, they were of the Order of St. Dominic but not of its spirit. They had misread the motives behind Father Samuel's enthusiastic appeal. They had not well understood that only the selfless could survive in the frontier church. Within six months of their arrival, all had left. Fr. Mazzuchelli only redoubled his efforts and went on. But in 1849 his nephew left too. Only Father Samuel and Brother Joseph Polking remained to the Province; he could no longer carry on the maintenance of the college as he had planned.

There was only one thing to do. The college had to go on; a new province for the Midwest would have to wait. Maybe after a few years, when the faithful had grown stronger, he could take up the work again. But now . . . sometime during September he entrusted Brother Joseph to the Convent of St. Rose in Kentucky, relinquished his powers as Commissioner Provincial, and surrendered the title and direction of his College to the Province of St. Joseph. Then he retired to nearby Benton to devote himself exclusively to the care of his parishes.

The fabric of Fr. Mazzuchelli's plans had been sundered by circumstances beyond his control; from his broad design for Christian education, only one thread remained intact. That was the sisters. Even from his days in Mackinac he had wanted sisters for the mission school; few could teach the Indian children as well as women consecrated to God. Then during the first years at the Mound, several girls had offered their services as housekeepers, and expressed their desire to become religious. He had seen in them the beginnings of a new community, a community of Dominican teaching sisters. They would complement with a girls' academy his own higher education program for men. He had striven, as far as the work with his own college would allow, to mould the Dominican spirit of the new group; he had translated the Rule of the Brothers and Sisters of Penance, edited it, prefaced it with special instructions. His departure in

1849 left to the care of the new fathers a community of four simply professed, very devoted sisters. The Congregation of the Holy Rosary had been founded.

But the sisters had not prospered at the Mound; their teaching duties had been discontinued and they had been reduced to domestic tasks about the college. So in 1852 Fr. Mazzuchelli brought them to Benton, where he again took up their direction, guiding them for the rest of his days. During the next fifteen years, his last years, the quietest of his life, he saw them grow into a strong, active community. The work of Christian education which they there undertook and brought to a great degree of fulfillment was perhaps his greatest consolation.

It was during one of these tranquil years, when he would spend his afternoons pondering a sermon, hearing children's confessions, and his evenings in tutoring his sisters on to higher education, that death came to Fr. Mazzuchelli. One February night in 1864, he was called to the bedside of a dying parishoner. He rushed to the man's home immediately, heedless to prepare himself against the elements. It was his last sick call. A piercing, piling snow storm; a chill, a fever; a week of a different kind of suffering; then he died. Those who were standing by said he spoke of God's beautiful tabernacles; his death, like his life, had been close to the dwelling place of the Lord.

Only the broad facts of Fr. Mazzuchelli's life have been recorded here. The more personal aspect of the missioner is very difficult to reach, because it lies hidden under his own reticence. The *Memoirs* tell us almost nothing of his problems and plans; his letters are unpublished. Perhaps the surest approach to the inner life of the man is through his work. For with Fr. Mazzuchelli above all, the work was the man. There are unwritten volumes to be read in his quiet continuation of duty following those cruel days at Sinsinawa. His struggle to establish conventual life in the most adverse of frontier circumstances speaks strongly of his Dominican spirit; the college of his founding stood to tell men he well understood that Order's work. Yet even more evident are those works of Fr. Mazzuchelli which still live: the sisters of a great congregation who pray daily for their founder's beatification; the enduring Catholicity of eastern Iowa and northern Illinois. It was for the people that Fr. Mazzuchelli drew the plans and laid the footing. It is the cathedral of their faith which best reflects his spirit.

Valerian Thomas, O.P.

DIVINE MATERNITY RECONSIDERED

DOWN THROUGH THE CENTURIES with a few exceptions the dogma of the Divine Maternity of the Blessed Virgin Mary has remained unassailed. Both educated and uneducated Christians have always tenaciously upheld this truth and in the Council of Ephesus the traditional teaching of the Church was solemnly defined. "If anyone does not confess that Emmanuel is in truth God, and that the holy Virgin is, in consequence, the Mother of God (since she brought forth according to the flesh the Word of God Who became flesh), let him be anathema."[1]

The Church has defined *that* Mary is the Mother of God, but she has not been so explicit about *how* Mary is a Mother. Was she a true principle of the conception of Christ? Was she a purely passive principle, or also in some way active? These questions remain disputable, and we hope to cast some light on the difficult problem of the precise physical relationship between Mary and Jesus Christ, the Son of God.

The difficulty of this question arises from two sources as St. John Chrysostom warns. "Go no further, nor seek for more than what is written, nor ask, how the Holy Spirit wrought this in the Virgin. For if it is impossible to explain the process of natural formation, how shall we be able to explain the action of the wonder-working Spirit?"[2]

Natural science has made marvelous progress in explaining the process of conception but much remains hidden. It is possible to discover the

[1]"Si quis non confitetur, Deum esse veraciter Emmanuel, et propterea Dei genetricem sanctam virginem (peperit enim secundum carnem carnem factum Dei Verbum), A.S." (Denz. 113).

[2]"Ne igitur ultra procedas, ne quid quaeras ultra ea quae dicta sunt, neque dixeris, Quomodo Spiritus Sanctus id ex Virgine operatus est? Si enim natura operante nemo potest formationis modum explicare, quomodo Spiritu mirabiliter agente, poterimus haec explanare?" (St. John Chrysostom, *In Matthaeum*, Migne, PG, LVII, 42).

structure of human germ cells but wholly impossible to observe their interaction at the instant of conception. We must, therefore, rely on a comparative method, that is, an analogical application of our knowledge of lower animals to man. This method has been very helpful but the basic obscurity remains.

The second difficulty, of which we must never lose sight, is that the conception of Christ is a substantially supernatural mystery. We can strive to plumb the depths of the temporal birth of the Son of God, but we shall always fall short for God alone can comprehend His mysteries.

What then was the physical role of Mary in the Incarnation? It has been defined by the Church that Mary is a true mother, and theologians have drawn from this doctrine a principle of supreme importance in the understanding of the Divine Maternity. St. Thomas expresses it in these words. "It belongs to the natural mode of His (Christ's) generation, that the matter from which His body was conceived is similar to the matter which other women supply for the conception of their offspring."[3] Suarez is even more explicit.

> For she (Mary) exercised in the conception and birth of Christ that same concurrence which other mothers customarily exercise in the internal, substantial conception and generation of their children; moreover it is from this concurrence of generation that the relationship of motherhood results.[4]

Almost all modern theologians in similar language draw this same conclusion. Since Mary is a true mother, we must affirm of her all the natural processes of motherhood except those which are contrary to another revealed truth or which are opposed to the dignity of the Virgin or her Son.

The unanimity, however, breaks down when we try to determine the precise concurrence of Mary in the conception of Christ. Sacred Scripture remains silent and affirms nothing explicitly beyond the simple truth of the Divine Maternity. The majority of the documents of the Church describe the relationship by the prepositions *ex* and *de*, which could mean either efficient or material causality.[5] The Council of Toledo says

[3]St. Thomas, *Summa Theologiae* (English Dominicans' transl., New York: Benzinger, 1947), III, q. 31, a. 5. All references are to this translation.

[4]"Habuit enim . . . in Christi conceptione et nativitate eumdem concursum quem aliae matres in interna ac substantiali filiorum conceptione ac generatione habere solent; relatio autem matris ex hoc concursu seu generatione resultat" (Suarez, S.J., *Omnia Opera* [ed. Vives, vol. XIX], disp. 12, sect. 1, n. 2).

[5]*Summa Theol.*, I, q. 39, a. 8.

that "He (the Son of God) was begotten by a new nativity because the undefiled virginity did not know intercourse with man and *provided the matter* of flesh made fruitful through the Holy Spirit."[6] These words would seem to predicate only a passive concurrence of Mary. The very same council in another place seems to indicate an active concurrence. "The Son, insofar as He is God, created Mary, insofar as He is man, was created by Mary."[7] No definite answer, therefore, can be found in the statements of the Church.

Nor have theologians been able to present a unanimous solution to the problem. St. Thomas[8] seems to teach that Mary did not co-operate actively in Christ's conception itself, but merely supplied the matter. Scotus,[9] however, following the physiology of Galen says that Mary acted by means of her active power in the conception of the body of Christ. Among contemporary theologians the majority seem to hold that modern physiology has overthrown the opinion of St. Thomas, and hence they maintain that the Virgin Mary was both active and passive in the very conception of Christ. Vosté can be cited to exemplify the modern position.

> But this matter fit for conception is the female ovum, which by its very nature is at the same time (simul) active and passive with regard to conception; therefore Mary, just as any mother, since she furnished the ovum, actively performed something.[10]

The truth will be found only by examining the facts of human generation in the light of modern physiology and the basic principles of causality. Then these facts can be assimilated and employed in the understanding of Mary's role in the Incarnation. This brief article cannot hope to exhaust this subject but only to present the distinctions and principles of a true solution.

The germ cells or primary ova in the human female are located in the ovaries. The function of the ovaries is to produce, develop, and ma-

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[6]"Nova autem nativitate est genitus, quia intacta virginitas et virilem coitum nescivit et foecundatam per Spiritum Sanctum carnis materiam ministravit" (Denz. 282).

[7]"Qui tamen secundum quod Deus est, creavit Mariam, secundum quod homo, creatus est a Maria" (Denz. 285).

[8]*Summa Theol.*, III, q. 32, a. 4.

[9]Scotus, *Summa Theologica* (Rome: Sallustiana, 1903), V, q. 32, a. 4.

[10]"Iamvero haec materia apta conceptui est ovulum femineum, quod ipsa natura est quoad conceptionem simul activum et passivum; ergo Maria, sicut, quaevis mater, ipso ovulo praestito aliquid active operata est" (J. Voste, *Commentarius in Summam Theologicam* S. *Thomae* (Rome: Angelicum, 1940), III, 96.

ture the ova, and to discharge them when fully formed. When a mature ovum is discharged from its follicle, it passes through the uterine (Fallopian) tubes and is carried into the uterus. Fertilization takes place in the upper portion of the uterine tubes. If fertilization does not take place within a day or even within a few hours the ovum begins to degenerate and can no longer be activated by the sperm.

If union of the sperm and mature egg takes place, the head of the sperm enters and fuses with the nucleus of the ovum forming a single cleavage nucleus. The cell thus resulting is a one-celled embryo (zygote) and contains the full number of chromosomes. With the formation of the zygote the process of fertilization is complete.

The fertilized ovum then begins to undergo cell division. The cells develop and are differentiated throughout the period of gestation until the mature fetus is ready to live outside the body. Throughout the period of gestation, although there is no connection between fetal and maternal blood, there is an exchange of materials by diffusion and absorption. Finally the maternal process is completed by the actual birth of the child.

From this brief outline it is evident that we can distinguish a threefold action in the conception of a child: 1) the processes *prior* to actual conception, and these include the maturation and discharge of the ovum and its passage through the tubes; 2) the process of *conception itself;* 3) the process of gestation *after* conception. We must determine the causality of a mother before, after, and in the instant of conception.

Without doubt a woman is the active principle in the production, development, maturation, and discharge of the ovum. It is she, by her generative power, who prepares the ovum and makes it suitable for conception. This also is the conclusion of St. Thomas. "This power, however, which prepares (the determined matter) belongs to the mother."[11]

It might be objected that, since St. Thomas was wrong in some of his opinions concerning the physiology of conception, his true conclusion follows only *per accidens.* It is true that St. Thomas, following Aristotle, erred as regards some physiological facts, thinking that the matter of conception was not the ovum, of which he knew nothing, but blood which was collected in the uterus. Yet he did not base his conclusions on these

[11]"Haec autem virtus praeparans (materiam determinatam) est matris" (St. Thomas, *Super Libros Sentent.* [ed. Parma, New York: Musurgia, 1948], III, dist. 3, q. 2, a. 1).

false physiological premisses. His argument, which is very helpful in the understanding of the role of a mother, flows from the basic principles of causality.

> There is another action which precedes this action (of conception) and is preparatory to it; for since natural generation is from determined matter, because *every act is received only in its proper matter* . . . it is necessary that the formation of a child be accomplished from suitable matter, and not from just any matter. Hence it is necessary that there be some active power through which the matter is prepared for conception. . . . This preparatory power belongs to the mother.[12]

A bricklayer does not build a wall from just any material, but he presupposes other laborers to prepare the mortar and bricks. Likewise the formation or generation of a child by conception is accomplished only from matter which is prepared for conception. What St. Thomas called suitable matter is, as we know, the ovum which is prepared by the active generative power of the mother.

Therefore we can conclude that the Blessed Mother like other mothers produced from her own flesh an ovum. By her active power this ovum matured and was prepared to receive the supernatural action of the Holy Spirit. *Antecedent to conception* Mary truly exercised an active concurrence.

A mother also is an active principle *after conception.* Although the fetus is a living organism having its own vital principle of operation, it is dependent to a great extent on the mother. For example, food and oxygen diffuse through tissues of villi from maternal blood into fetal blood. Wastes diffuse through tissues of villi from fetal to maternal blood. Mary performed for her child all these natural functions which belong to maternity. It staggers our minds to realize that this Fetus, growing and developing within the virginal womb, is God Himself. He "did not consider being equal to God a thing to cling to, but emptied Himself, taking the nature of a slave and being made like unto men."[13]

What can be said about *conception itself,* which is the primary function of maternity? Was Mary the active or passive principle in the instant

[12]"Alia actio est praecedens hanc actionem, (conceptionem) et praeparatoria ad ipsum. Cum enim generatio naturalis sit ex determinata materia, eo quod unusquisque actus in propria materia fit . . . oportet ut formatio prolis fiat ex materia convenienti, et non ex quacumque. Unde oportet esse aliquam virtutem agentem, per quam praeparetur materia ad conceptum. . . . Haec autem virtus praeparans est matris" (*Ibid.*).

[13]Phil. 2: 6, 7.

of the conception of Christ? We must hold with St. Thomas and most of the great commentators "that in Christ's conception itself she did not cooperate actively, but merely supplied the matter thereof."[14] Before proceeding to any proof, it is necessary to determine precisely what conception is.

Conception is "that natural action or event, by which according to the course of nature a man coming forth from his parents begins to exist, or by which a new human substance derives his existence from his parents."[15] There are several points which must here be emphasized. First, conception formally speaking is numerically only one action. As defined, it prescinds from all other extrinsic actions of the parents before, after, and even during conception. Also human generation is considered here as it flows from the natural concurrence of the parents abstracting from the creation of the soul by God. Finally, for the sake of avoiding needless discussion, we will follow the opinion that the infusion of the rational soul is concomitant with conception.

It is very difficult to determine exactly when conception occurs, at what instant in the physiological process the fecundated ovum begins to exist, to live and to operate in its own right. Most authors seem to hold the process of fertilization ends with the union of the nuclei of the sperm and ovum and the formation of the zygote. At that moment the steps tending toward union are completed and cell division begins. "The formation, maturation and meeting of the male and female germ cells are all preliminary to their actual union into a zygote which definitely marks the beginning of a new individual."[16] Conception and the infusion of the soul, therefore, probably take place at the instant of the fusion of the nuclei of the male and female elements.

In this action of fertilization by which a new human substance begins to exist the ovum is purely passive. Arey[17] in comparing the male and female sexual cells points out two distinctive traits of the ovum: 1) since

[14] *Summa Theol.*, III, q. 32, a. 4.

[15] "Actio illa vel eventus naturalis, quo secundum naturae cursum homo a parentibus oriendo exsistere incipit, seu quo nova substantia humana a parentibus esse suum derivat" (P. Breitung, S. J., "De Conceptione Christi Domini," *Gregorianum*, [V, 1924], 546).

[16] Arey, *Developmental Anatomy* (Philadelphia: Saunders, 1942), 43.

[17] "The ripe egg contains an abundance of cytoplasm, and often a still greater supply of stored food (yolk). As a result, it is large and passive, yet closely approximates the typical cell in all features except that the previously active centrosome has disappeared" (*ibid.*, 34).

it contains an abundance of cytoplasm and stored food, it is large and passive; 2) its active centrosome has disappeared. Hence the physiological structure of the ovum admirably prepares it for its specialized function. The sperm, however, is small and mobile, and it has as its chief function the activation of the ovum and hence its role in heredity.[18] At the moment of the fusion of the nuclei of the ovum and the sperm, the egg is stimulated to mitosis and the process of development is initiated. Modern research, therefore, far from supporting the theory that the mother and father are both active, seems to indicate that natural concurrence is only passive.

Now proceeding from these facts we can apply the principles of causality in order to penetrate and understand as far as possible a mother's role in conception. St. Thomas says, "*Since each thing is on account of its operation* (*De Coelo*, ii), nature would not, for the purpose of generation, distinguish the male and female sexes unless the action of the male were distinct from that of the female."[19] This same truth is enuntiated by modern physiology in very similar terms. "The dissimilar male and female sexual cells are admirably adapted to their respective functions and illustrate nicely the modifications that accompany a physiological division of labor."[20] Whenever we find a division of labor among living things, we find that nature provides a special cell or organ to carry out that special function. The brain cells and the blood cells differ greatly because each type of cell is destined to its own proper work. In human reproduction we find the very basic distinction of the sexes. We find two and only two diverse functional cells involved in human conception, the sperm operating in virtue of the father, the ovum operating in virtue of the mother. The operation of the male, therefore, must be distinct from that of the female.

"Now in generation," continues St. Thomas, "there are two distinct operations—that of the agent and that of the patient."[21] In other words, in conception, although there can be many concomitant operations, there are only two *per se* operations—*actio* which is from the active principle and *passio* on the part of the passive principle. Hence the sperm and the ovum, the father and the mother, as regards the action of conception

[18]"Hence, apart from its role in heredity, the chief function of the sperm cell is to seek the ovum and activate it to divide" (*Ibid.*).

[19]*Summa Theol., loc. cit.*

[20]Arey, *loc. cit.*

[21]*Summa Theol., loc. cit.*

itself are related as agent and patient, the father necessarily being the active principle, the mother the passive principle.

Arguing negatively it is evident that both the sperm and the ovum cannot be active in relation to one and the same action, for in that case there would be no patient to be acted upon. Both cannot be passive or there would be no agent to effect conception. Likewise the mother could not be partially active and partially passive for "it is impossible that that which is determined as a patient have an active power with respect to the same thing."[22] A principle cannot be both active and passive at the same time and in the same respect. Therefore in the instant of the formal action of conception "the entire active operation is on the part of the male and the passive on the part of the female."[23]

Applying this conclusion to the Incarnation, it is evident that Mary concurred passively and not actively in the instant of the conception of Christ. When she pronounced her humble *fiat,* the Power of the Most High, acting without the instrumentality of a human father, fecundated the ovum in her womb—Mary only presented the matter.

Even if, hypothetically, the whole argument from the physiology of maternity might be destroyed, there remains an impassible barrier to the active concurrence of the Virgin Mother. What if Mary were active at the moment of the Incarnation? What would be the patient, for every created action requires a patient? The only other principle of the Incarnation is the Holy Spirit, and we certainly cannot predicate passivity of Him. Therefore, Mary actively prepared the matter from her own flesh as does every mother, but her causality in the instant of conception is only material and passive.

Several objections might be raised at this point, for certain facts seem to indicate that the mother does function actively in conception. For example, the ovum produces a substance called fertilizin which seems to have a definite influence in fertilization. "One set of activities exhibited by this substance agglutinates and binds the spermatazoon to the ovum; the other influence is directed toward activating the egg's cytoplasm into cell division."[24]

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[22]"Impossibile sit illud quod est determinatum ut patiens, habere virtutem activam respectu ejusdem" (*Super Libros Sentent.,* III, dist. 3, q. 2, a. 1).

[23]*Summa Theol., loc. cit.*

[24]Arey, *op. cit.,* 42.

The first activity of fertilizin which is the binding of the sperm to the egg certainly is not conception in the formal sense. Conception is the production of a new human substance by the parents and this binding action is antecedent to the actual production of a new individual. Agglutination is not conception.

The second activity presents greater difficulties. A close examination however, shows that neither is the activation of the egg's cytoplasm conception. Without the union of nuclei of the egg and sperm or some other artificial stimulation, fertilizin will never produce this effect. It is like a church bell which can actively produce a sound only when it is passively rung. The fertilized egg through the chemical substance, fertilizin, can actively begin cell division, but only after it has been passively stimulated by some extrinsic agent. The activation of the egg's cytoplasm into cell division, therefore, is not conception but a vital operation of the new individual consequent upon conception.

Another authority states that "the nucleus of the ovum and the nucleus of the spermatazoon *approach each other* and fuse more or less completely into a single nucleus known as the cleavage nucleus."[25] This mutual approach also seems to indicate an active participation in conception by the female cell. Once again it is necessary to recall the precise notion of conception. The union of nuclei is not the production of a new human substance. Union or contact between agent and patient is a condition *sine qua non* of the production of an effect, but it does not produce the effect. The mother could be active in effecting contact between agent and patient and still not be active in conception.

In conclusion, the Blessed Mother was the vital efficient principle of the production and maturation of the ovum and of every other active function of maternity, but she exercised a material causality alone in the formal action of conception.

We can affirm again with the council of Toledo that "Christ, insofar as He is man, was created by Mary."[26] Not that Mary actually produced Christ from nothing—creation in the strict sense is proper to God—but she had some active part in the production of something new, something never before seen on earth. Mary is the Mother of the Word made Flesh. But the clearest statement of the Blessed Virgin's causality in the con-

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[25]Kimber-Gray, *Anatomy and Physiology* (New York: Macmillan, 1933), 23.
[26]Denz. 285.

ception of Jesus Christ is found in the other citation from the council of Toledo. "He (the Son of God) was begotten by a new nativity because the undefiled virginity did not know intercourse with man and provided the matter of flesh made fruitful through the Holy Spirit."[27]

Here then is a profound mystery. Mary's passive concurrence was in no way proportioned to the fecundative action of the Holy Spirit. She had only an obediential potency in relation to the term of her maternal functions. Yet by her natural generative power she fulfilled all the requirements of motherhood and truly vindicates for herself the title of Mother.

There is a real physical relationship between Mary and Jesus Christ for "that conception is terminated at the hypostasis of the Son of God."[28] For this reason the Blessed Mother is elevated to the sublimity of the hypostatic order, and this elevation has obtained for the Virgin a grace whose fulness, even after two thousand years, remains uncomprehended. Just as a whirlwind dips and raises a straw into the vastness of the sky, so the Spirit of God entered the womb of the Virgin and raised her to the vastness of the hypostatic order, to the very threshold of the divine. There, next to her Divine Son, the Catholic world, yesterday, today, and tomorrow, venerates her with these oft-repeated words: Holy Mary, *Mother of God,* pray for us sinners now and at the hour of our death.

Cletus Wessels, O.P.

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[27]Denz. 282.

[28]". . . quia conceptio ad hypostasim Filii terminata est" (*Super Sentent.*, III, dist. 4, q. 1, a. 1, sol. 3, ad 1).

THE CHURCH AND ST. JOSEPH

ONE OF THE MOST STRIKING ASPECTS of our Catholic faith is to be found in the "evolution" of her doctrine. To the discerning eye there can be no more beautiful proof of divine life in the Church than this: the fulness of divine knowledge in its unfolding, the reality whose truth becomes manifest only through age, wisdom and the working of the Holy Spirit. It is the purpose of this paper briefly to trace that development or "evolution" concerning our knowledge of St. Joseph.

Sacred Scripture portrays the spouse of Mary with a penetrating clarity and deftness, yet leaves us in wonderment because of its brevity. Why is the Word of God this concise over a saint whose excellence is so manifest today?

It is true the Gospels contain the germ for the fruition of what knowledge we have. Matthew, Luke, and John describe him as a just man, of the House of David, the spouse of the Blessed Mother, the protector of the Holy Family, and the legal father of Jesus. Looking deeper into the mystery of this comparative silence, one may glimpse the great truth of God's providence. We see that St. Joseph's task on earth was preeminently unique. having been divinely chosen as protector of the Redeemer, he was by the same fact relegated to obscurity. For the divine origin of Christ, so essential to His Public Ministry, would only have been confused by any strong emphasis upon the place of St. Joseph.

Early Christianity produced very little literature in regard to our saint. The reasons for this can be discovered both in the fact that the early Church was a church of martyrs, and, that emphasis upon his relationship to Christ would have exposed dogmas of faith to attack by heresy. With

this in mind we may consider any explicit information which we do find as especially significant.

The first great ecclesiastical writer to give St. Joseph more than passing mention was the genius of Alexandria, Origen. In his *In Epistola ad Romanos* he spoke of St. Joseph as the "legal father" of Jesus, backing up this statement with a reference to Joseph's Davidic genealogy.[1]

As early as a century later with St. Ephraem, the austere mystic of the East, we can find true progress. In speaking of the great dignity of St. Joseph, he based it on the fact that St. Joseph was married to the Blessed Mother and therefore was the "father" of Christ. He further explained that this was a fatherhood more noble and more true than that of an ordinary adoptive father; he declared: ". . . reality itself gave Joseph his name (father) . . . the espousal pledges . . . effected that he who had not generated should be called father."[2]

How few are the paths of true progress which lead on unblocked by barriers! Just as in the history of any development, here too, among our early Fathers, there was found a harmful dissent. For it was at this time that St. Epiphanius, in writing of Joseph, chose as sources for his effort the Apocrypha. These fictional works proved to be the most troublesome hindrance to a clear understanding of the saint. Because they were concerned only with protecting Mary's virginity, and detouring completely from factual data, they formed many legends which confused, more than helped, a true understanding of her spouse. Hence, his work in regard to St. Joseph must be considered spurious and unenlightening.

A contemporary of St. Epiphanius in the West was St. Ambrose. This great bishop of Milan returned to the concept of St. Ephraem, and pictured a close relationship between Joseph's marriage and his paternity. This relationship, as will be evidenced, constantly recurred among those who considered the reason for St. Joseph's dignity.

Turning to the East once again we come upon an era which had recently been wrapped in Arianism. St. John Chrysostom was the great ecclesiastical personality of the moment. A true son of his times, he avoided directly emphasizing St. Joseph. The only tributes he paid him were the

[1]Origen, *In Epistola ad Romanos*, Migne, PG, XIV, 851.

[2]As quoted in F. L. Filas, S.J., *Joseph and Mary* (Milwaukee: Bruce, 1952), 21.

titles: just, faithful, and magnanimous. However, he did portray an angel as saying the following words to St. Joseph:

> Even though you contributed nothing to his generation and the virgin remained inviolate, nevertheless, what belongs to a father without destroying the dignity of virginity, that I bestow on you. . . .[3]

While St. Jerome strongly emphasized the virginity of St. Joseph, his great contemporary, St. Augustine, stepped forth with the most significant contribution up to this point. In his treatise *De Nuptiis et de Concupiscentia* he made the following classic statement: "Consequently every good of marriage is fulfilled in the parents of Christ—offspring, fidelity and sacrament."[4]

The major points in his teaching declared: 1) God gave to St. Joseph the rights of a father. 2) His high position is due to him because of the marriage. 3) St. Joseph was far more than an adoptive father. 4) He was a true father to Christ in the moral order; although there was no physical generation, there existed that mutual bond which ordinarily flows from generation. 5) He was a virgin and received Christ with a parental care which was entirely free from any concupiscence. 6) Finally, and most important, he was the true husband of Mary.

We may consider the heritage which St. Augustine left us as the first great milestone on the path leading from the starting point of the Gospels to our present knowledge of St. Joseph. However, if we look for his brilliant insight to be developed with an ever-burgeoning magnitude, we shall be sorely disappointed. Throughout the next seven hundred years his concept lay dormant.

To appreciate the causes underlying this fact we need only consider the history of his day. It was at this time that the barbarians began infiltrating the old Graeco-Roman civilization. From the fusion of these two peoples there evolved a new culture, bringing with it new legal and economic systems.

In the mind of St. Augustine the marriage of Joseph and Mary was of the greatest importance, for from this relationship all of his other prerogatives were derived. We must remember that St. Augustine was following Roman Law and could speak of a true marriage, since this

[3] *Ibid.*

[4] "Omne itaque nuptiarum bonum impletum est in illis parentibus Christi, proles, fides, sacramentum" (St. Augustine, *De Nuptiis et de Concupiscentia,* Migne, PL, XLIV, 421).

type of law saw marriage as a union of wills. On the other hand, the new civilization with the Teutonic Law which it begot, saw the essence of marriage as consisting in its consummation, and therefore frustrated any progress along these lines.

The discussion of this vacuum in the development of Augustinian thought should be especially significant to us. Its fruit, or rather lack of fruit, is seen in our daily devotion. Unfortunately it was during these very years when St. Joseph was lost to sight, that the development of our present day liturgy came about. The clamoring silences of the *Confiteor* and the Canon of the Mass are witnesses to this fact.

The ideas of St. Augustine were not altogether abandoned; they were only hidden, to be found seven hundred years later by medieval theologians. This reawakening was occasioned by a very practical problem: the preservation of the meaning of Holy Scripture, which clearly states that the Blessed Mother was both a virgin and the wife of St. Joseph. Since Teutonic Law made the concepts of virginity and marriage incompatible, many restricted the union of Joseph and Mary to a type of engagement. The issue was strongly debated up to the year 1200, but when finally settled, the decision of the great theologians removed any doubt that Joseph was truly the husband of Mary. The defenders of this bond were Hugh of St. Victor and Peter Lombard; their opponent, Gratian. The weighty authority and clear cut logic of Lombard's *Liber Sententiarum* eventually caused Gratian's position to be completely rejected.

St. Thomas Aquinas, the "Angelic Doctor," now arrived on the scene. It is only with St. Thomas that we find the principles for a fuller understanding of St. Joseph. Although he treated of this subject in a few paragraphs, he succinctly re-presented the doctrine of St. Augustine. He further explained the fact of marriage and paternity. In addition to this he laid down the principle which all later theologians follow when speaking of our saint. For in treating of the fulness of grace in Jesus, and the holiness of Mary, he formulated the sublime truth that *an exceptional mission calls for a corresponding degree of grace.*[5] The application of this principle to Joseph's role as father of the God-Man is obvious.

Many and great were the saints and churchmen who followed the scholastic era. Among those of special import to our study John Gerson

[5]Reginald Garrigou-Lagrange, O.P., *The Mother of the Saviour* (St. Louis: B. Herder, 1949), 325.

and Isidore de Isolani hold the cardinal positions. Although neither effected any immediate doctrinal development, much credit for its achievement was due to them.

Within the scope of their efforts we may note the wonderful order of God's plan. For here we find theology working hand in hand with her offspring, devotion. It was theology which, having taken its seed from the fonts of divine knowledge, produced, nourished, and directed devotion. And it is such devotion, rooted in solid truth, that shall eventually bring about a full and definitive statement by the Church.

John Gerson, both by reason of his own effort and by a temporal coincidence, was the key to the spread of this devotion. Gerson was the chancellor of the University of Paris during the time of the Western Schism. It was at the Council of Constance that he was given his opportunity. Here in a series of sermons before thousands of ecclesiastics and laymen from all over Europe, his fervent plea for devotion and liturgical honors to St. Joseph fostered its universal development.

The theology which made possible the work of Gerson, as we have seen, had been slowly developing for fourteen hundred years. Yet there was only fragmentary evidence of its existence. Hence the importance of the next figure, Isidore de Isolani.

Very little is known of Isidore. The most obvious point of similarity between himself and the saint whom he so greatly venerated lies in the obscurity of his life. A few available facts tell us that he was born about the year 1480 in the district of Milan; the next event of consequence was his entrance into the Order of Preachers at the turn of the century. We know also that he taught philosophy and theology for some time in Ticino, and later at Bologna. He died between the years 1525 and 1530.[6]

However, the cloak of silence which veils Isidore cannot obscure the fame of his work. The book of greatest value which he produced is the *Summa de Donis Sancti Joseph.* In this work Isidore de Isolani aimed to assemble all of the scattered data on St. Joseph, and, after the manner of St. Thomas, to fuse them into a *Summa* or *Compendium.* Isidore wasted no effort in collecting everything available and pertinent to furthering the knowledge of St. Joseph, and under the light of theology, he analyzed and synthesized all this information. Whatever the price of his labors,

[6]Quetif-Echard, *Scriptores Ordinis Praedicatorum Recensiti* (Paris: Ballard et Simart, 1729), I, 110.

the result was monumental. For in his *Summa,* this Dominican scholar produced the first comprehensive, theological study of St. Joseph. By this work alone Isidore de Isolani has merited to be called the "Theologian of St. Joseph."[7]

Two points of his study are especially striking. He emphasized the lofty place of glory which St. Joseph attains. With the air of a prophet he predicted the patronage and liturgical honors which would be attributed by the Church to St. Joseph.

The statements and thoughts presented so far represented great knowledge and recognition of St. Joseph. However, to date, Holy Mother the Church has given no official comment. Only in the nineteenth century did the prophecies of Isidore begin to be realized. At that time the great and universal devotion, already alluded to as the fruit of his labors and those of Gerson, eventuated in papal expression. On December 8, 1870, Pope Pius IX issued the Decree, *Quemadmodum Deus,* in which he declared:

> It has pleased our most holy Sovereign, Pius IX, Pope, . . . to comply with the desires of the prelates and to commit to St. Joseph's most powerful patronage himself and all of the faithful. He therefore has declared St. Joseph Patron of the Universal Church. . . .[8]

In 1889 Pope Leo XIII issued *Quamquam Pluries,* an encyclical on St. Joseph, reemphasizing his dignity and holiness. Here we find the expression of the Church concerning the fundament for the veneration due to St. Joseph. Pope Leo declared:

> There are special reasons why Blessed Joseph should be explicitly named the Patron of the Church and why the Church should in turn expect much from his patronage and guardianship. For he, indeed, was the husband of Mary and the father, as was supposed, of Jesus Christ. From this arise all of his dignity, grace, holiness, and glory. The dignity of the Mother of God is certainly so sublime that nothing can surpass it; but none the less, since the bond of marriage existed between Joseph and the Blessed Virgin, there can be no doubt that more than any other person he approached that supereminent dignity by which the Mother of God is raised far above all creatures. . . .[9]

The seeds of divine knowledge planted in Sacred Scripture have slowly through the years generated knowledge and devotion to St. Joseph.

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[7]B. Llamera, O.P., *Theologia de San Jose* (Madrid: Biblioteca de Auctores Christianos, 1953), 348.

[8]Filas, *op. cit.,* 164.

[9]*Ibid.,* 171.

Gradually his name has attained the prominence which it most certainly deserves. However, this development is not static. It is not yet complete. It shall continue to grow, coming to rest only when its fulness is realized in the bosom of truth and love.

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PRINCE HAMLET'S TRAGIC FLAW

SO FAR, THE PERSONALITY OF HAMLET has defied analysis. No theory has yet given an account of his character consistent with *all* the facts. If Hamlet is a Werther, why does he show such a boistrous realism? If his "basic emotion" is the feeling of a son toward a guilty mother, why is he equally concerned about other things? If he is a procrastinator, why does he often act with such decisive vigor? Yet in spite of the inconsistencies which critical theories have professed to find, the stage has never seen a character ring true so consistently as Hamlet. On reflection, his failure to kill the king at prayer becomes a psychological problem; as a primary dramatic experience, it is perfectly convincing—far from being out of character, it is what we instinctively expect him to do. The problem, in other words, seems to begin and end at the level of psychology. As far as possible, therefore, we wish to keep our own inquiry on the same level. Dramatically, Hamlet is a great deal more than a character *type*, just as Macbeth is more than a representation of ambition. Nevertheless, a psychological inquiry of this kind is useful. If nothing else, it will bring Hamlet's character into clearer focus by establishing a psychological (or characterological) focal point from which its unity and definition may be seen. In so doing it will remove the obscurities by which critical reflection has clouded the brightness of Hamlet's personality. The universality of the play's appeal as a dramatic experience gives ground for thinking that the critical difficulties are answerable.

The Tragic Flaw. Tragedy is an imitation of human action. A tragic flaw may, therefore, be defined in terms of what it imitates as *the human cause in a noble individual of a significant human disaster. Human* here

has the formal meaning *rational and deliberate:* natural catastrophes—disasters at sea, earthquakes, or pneumonia—may be called "tragic," but properly only those disasters are tragic whose antecedent is the free and deliberate will of man. The flaw must exist in a noble character and the catastrophe must be significant. Although, from one point of view, every moral evil, even venial sin, is significant, not all have the *dramatic* quality requisite to tragedy. Magnitude must be present both in what the disaster touches (the state, family, a great man), and in its cause (a noble person). This cause, the tragic flaw, is, we said, *in* a noble character; more corectly it *is* the character of the protagonist. *Relative to the action of the play,* the tragic flaw unifies and formally determines all those other attributes—temperament, personal history, speculative and active qualities —which enter into character. Our purpose, then, is to find and examine the flaw which defines the character of Hamlet both in relation to the play's action and to the characteristics making up his dramatic personality.

Two Hamlet Theories. Let us consider briefly the two most representative theories. The first is the Romantic theory which flourished at the beginning of the nineteenth cenutry. The second is that of Prof. Robertson[1] and T. S. Eliot.[2]

There are actually several romantic theories, but since the differences between them are only a matter of emphasis and individual perspective, they are sufficiently alike to be treated as one. Common to them is the conception of Hamlet as a romantic idealist or *poet* who is too sensitive and speculatively inclined for the difficult practical task he has been given. In its more extravagant forms the romantic theory pictures Hamlet as a young man "in advance of his time," too nobly idealistic to endure the harsh realities of a medieval and corrupt Denmark or to devote himself whole-heartedly to a bloody dynastic intrigue. His tragedy consists in a conscious or unconscious revolt against the depravity of society. If he fails to act, it is precisely because he is too good for such a world: "The times are out of joint. O cursed spite, that ever I was born to set it right."[3]

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[1]John Mackinnon Robertson, *The Problem of Hamlet* (New York: Harcourt, Brace and Howe, 1920).

[2]Thomas Stearns Eliot, "Hamlet," *Elizabethan Essays* (London: Faber and Faber, 1934).

[3]Shakespeare, *Hamlet* (ed. G. B. Harrison, *Shakespeare, Major Plays and the Sonnets;* New York: Harcourt, Brace, 1948), I, v. All references are to this edition.

Less enthusiastic versions interpret Hamlet's failure as merely the procrastination or melancholic inertia of a sensitive temperament in the face of an odious situation and difficult obligations. In any case, whether the defect is attributed to Hamlet himself or to his enviroment, it is *temperament*—taken in the wide sense of natural inclinations plus the influence of background—which the various romantic theories hold to be the cause of the tragedy.

Unlike the romantic explanation, which emphasizes subjective factors, Prof. Robertson's theory is based on the objective circumstances affecting Hamlet's actions. His mother's adultery is singled out as the principal cause of his failure. In this view, the basic emotion of the play is the feeling of a son toward a guilty mother. Hamlet's imaginativeness, speculative inclinations, and sensitivity are, of course, presupposed; but the burden of explanation is assigned to Gertrude's infidelity. Many things support this interpretation. Preoccupation with his mother's guilt not only possesses throughout the play the appearances of a genuine obsession; it is also something against which the ghost at his first appearance warns Hamlet, and for which he again upbraids him—*in flagrante delictu* —when he appears a second time to remind him of his "most blunted purpose."[4] Robertson rightly points out that for a sensitive young man few experiences could be more painful or disillusioning than the sudden discovery of a mother's infidelity, and he believes that the emotional crisis it occasions in Hamlet is the real cause of the tragedy. The melancholy and "madness" which Hamlet exhibits, as well as the consequent paralysis of his powers of action—in which the tragic failure is thought to consist—is thus attributed to "the feelings of a son toward a guilty mother." This, in its essential outlines, is the second influential theory about the play.

Of the two theories, it is the romantic, especially in its extreme form, which the facts most evidently controvert. Familiarity with the play makes it difficult for us to see Hamlet consistently as a romantic idealist His attitude toward Claudius, the killing of Polonius, his handling of the plot on the part of Rosencrantz and Guildenstern, show that he can be vengeful, bloody, and resourceful, and flatly contradict poetic neurasthenia as a character trait. Granted that Hamlet is inclined toward "thinking too precisely on th'event," it is equally true that his thoughts are always vigorous and realistic. In spite of superficial resemblences, he is not at odds with the world in the manner of Young Werther. The romantics hit on

[4]III, iv.

a part of the truth, but their theories are simply not in accord either with the total picture or the essential theme of the play.

We have admitted that the theory of Robertson and Eliot is in many ways plausible. A serious defect is that (like the romantic theories) it leaves much of the play dramatically unintelligible. The scene devoted to the leavetaking of Laertes, for instance, has nothing to do with the feelings of a son toward a guilty mother.[5] Nor is it merely comic relief, or of real importance to the plot. Ophelia's madness presents a similar difficulty. At least it does not seem to have any thematic connection with what these authors hold to be the essential theme of the play. Similarly with other minor and major scenes. In addition, the theory fails to take into account Hamlet's feelings about the loss of his father to which equal attention is given, and his concern about many other things. T. S. Eliot, who agrees with Robertson's analysis, sums up the contradictions of his and of other theories when he says that we are left with "an inexplicable Hamlet in an inexplicable play."[6]

A more fundamental objection to these theories is that they seem to misconstrue the nature of tragedy. If tragedy is an imitation of *human* action, then neither temperament nor the objective correlatives to emotion sufficiently explain a tragic failure. Temperament and emotion do contribute to a human act, but its ultimate determinants are habits of action: the dispositions, virtues or vices, the *character* which make a man what he *is*.

For the dramatist, the moral virtues represent the solution to what would otherwise be a dilemma. In drama, as in life, a man has *character* insofar as he acts in a determined way. Yet, if his actions are to be considered human they must also be rational and free. So the dramatist is apparently forced to choose between determined characters whose actions are not free, or free actions which have no intelligible antecedents in character. To draw character in terms of emotion, temperament, or an Oedipus Complex is precisely to strike one of the horns of the dilemma. The moral virtues, on the other hand, resolve the opposition between freedom and determination. For example, a man is said to have the vice of ambition when he habitually acts in an ambitious manner, and when ambition is in some sense the dominant note in his life. Yet even his most ambitious actions remain free, so long as the objects specifying ambition

[5]I, v.
[6]Eliot, *op. cit.*, 62.

are subject to his deliberate choice. In spite of the determination implied by the virtues and vices, they represent human freedom in a truer sense than the isolated free act. Human life does not consist of a single action, but of the many acts generating character. "For one swallow does not make a summer, nor does one day."[7] From this point of view, character can be determined while connoting a lifetime of creative liberty.

Virtues and vices also provide the definition and the unity-in-variety demanded by dramatic character. Some one virtue or vice is usually found as the dominant theme of a man's life: the temperance, lust, greed, or courage correlative to the ends he has set for himself; and which *is* his character. But this unity is not one of poverty. All the factors which make men what they are enter into this particular virtue or vice as into an organism. Heredity, rank, climate, culture, and personal history here take on a human unity which is both intelligible and dramatic.

This perspective is particularly relevant to Shakespearean tragedy, not only because he is such a faithful mirror of life as it is, but also because he expressly conceives human nobility as a *rational* thing. The setting for all his tragedies is *cosmos* or universal order, which, though disturbed by "tempests," is the work of an intelligent Providence. Man is creation's crown. His physical powers manifest in a superlative way the order and beauty of the physical world. But for Shakespeare man is more than a mere part of the universe. Reason makes man, in effect, a universe in miniature, a *microcosmos,* whose rational self-command can be shaken by "tempests" of inordinate passion and malice.[8] In this setting, tragedy has the form of a conflict between reason and unreason, between moral good and moral evil. Nor is it a question of *applying* such terms to what happens in his plays: they are the terms he himself uses to describe the issues at stake, and perhaps nowhere more frequently than in *Hamlet.* To conceive human conflict in terms of the rule of reason is to conceive it, consciously or not, in terms of the moral virtues which dispose man to act according to the rule of reason. From the point of view of action and drama, the nobility of the rational creature is the nobility of the moral virtues.

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[7]Aristotle, *Nichomachean Ethics* (ed. Richard McKeon, *The Basic Works of Aristotle;* New York: Random House, 1941), 1098a, 18. All references are to this edition.

[8]Robert Speaight, "Nature and Grace in the Tempest," *The Dublin Review* (First Quarter, 1953).

Hamlet's Tragic Flaw as a Defect in Prudence

To which of the four cardinal virtues does the flaw pertain? Certain features of the play immediately suggest that the burden falls on Prudence rather than Justice, Temperance, or Fortitude.

1. Everyone agrees that Hamlet's failure to act is caused by some sort of irresolution of mind of which Hamlet, indeed, accuses himself. This suggests prudence because irresolution is a vice, or act, directly opposed to the principal action of prudence, *command.* 2. Equally suggestive is the thematic prominence of *reason.* The word itself ("how noble in reason," "Godlike reason," "disorders of my reason and my blood," "a beast that wants discourse of reason," "reason panders will") and related imagery occur far more frequently than in any other play of Shakespeare. Its thematism is further emphasized by Hamlet's "madness" and Ophelia's insanity. All of which connotes prudence because, in contrast to the other three cardinal virtues which are perfections of appetite, prudence perfects the practical reason which is its subject. Imprudence, in fact, represents a practical irrationality or a "madness" of the practical reason. 3. The manner of the failure also implies prudence. In *Macbeth* ambition leads to an act which is criminal in a *positive* sense: Macbeth acts for an end which is objectively evil. Hamlet, on the other hand, never consciously refuses to perform his sworn task. His tragedy is a failure to do the deed in the proper time and manner, a fault of *improvidence* opposed to that aspect of prudence bearing on the means and circumstances appropriate to an end.[9]

The virtue of prudence. The function of reason in human action has been aptly formulated by Aristotle in the Nicomachean Ethics:

> What affirmation and negation are in thinking, pursuit and avoidance are in desire; so that since moral virtue is a state of character concerned with choice, and choice is deliberate desire, therefore both the reasoning must be true and the desire right, if the choice is to be good, and the latter must pursue what the former asserts.[10]

"Choice is deliberate desire." This indicates the functional relationship of prudence to the other cardinal virtues. Objects specifying justice, temperance, or fortitude are those of desire (of the will, or of the concupiscible or irascible appetites); objects which are good *simpliciter.*[11] That of prudence is a good of the practical reason: its object is the *truth* of practical

[9]St. Thomas, *Summa Theologiae,* II-II, q. 49, a. 6.
[10]Aristotle, *op. cit.,* 1039a, 20.
[11]*Summa Theol.,* II-II, q. 47, a. 4.

action.[12] This is why prudence is said to presuppose the ends of the other virtues,[13] why it determines for them the mean of reason,[14] and why it is largely concerned with circumstances and the means.[15] Prudence is the element of deliberation in man's moral life: the *counsel, judgment* and *command* which rational direction implies.

Prudence includes within its scope both the universal principles and the contingent factors which have a bearing on action. It demands not only a grasp of the ultimate ends, but also experience of life's vicissitudes:

> . . . while young men become geometricians and arithmeticians and wise in matters like these, it is thought that a young man of practical wisdom cannot be found. The cause is that such wisdom is concerned not only with universals but with particulars, which become familiar from experience. . . .[16]

Youth thus carries with it a tendency to imprudence because of insufficient experience:

> All their mistakes are in the direction of doing things excessively and vehemently. They disobey Chilon's precept by overdoing everything; they love too much and hate too much, and the same with everything else. They think they know everything, and are always quite sure about it; this, in fact, is why they overdo everything.[17]

Passion is another factor directly opposed to prudence.[18] Spiritual vices such as malice might seem to militate the more directly against a spiritual faculty like reason. But malice concerns evil ends, and a man (for instance Iago) is capable of reasoning well about an evil end. Passion, on the other hand, by sweeping aside the judgment of reason directly opposes prudence. From this point of view, manifestations of preternatural evil (witches and Lady Macbeth's powers of darkness) are appropriate to *Macbeth* where the tragic flaw is a defect in justice. Equally appropriate to *Hamlet* are the themes of *youth* (Laertes, Fortinbras, Horatio, Ophelia) and *passion* (Gertrude, Claudius, Hamlet, Ophelia) developed throughout the play. Youth is doubly inclined to imprudence both by passion and inexperience: "Young men have strong passions and tend to gratify them indiscriminately . . . their lives are regulated more by moral feeling than

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[12]B. Merkelbach, O.P., *Summa Theologiae Moralis* (Paris: Desclee De Brouwer, 1946), II, 11 ff.

[13]*Summa Theol.*, II-II, q. 47, a. 6.

[14]*Ibid.*, a. 7.

[15]Merkelbach, *op. cit.*, 12.

[16]Aristotle, *op. cit.*, 1142a, 10-15.

[17]Aristotle, *Rhetoric*, 1389b, 5-10.

[18]*Summa Theol.*, II-II, q. 53, a. 6.

by reasoning."[19] Older people, whose emotions even when ill-regulated are more "experienced" and stable, tend to imprudence by *habits* of intemperance, lust particularly, rather than by quick pasions—a fact to be remembered regarding the role of Gertrude in the play.

Hamlet. Particular vices or acts opposed to prudence are: *inconsideration,* inattention to value, principle or purpose; *inconstancy,* instability of judgment; *immoderation,* disregard of the rational mean in action; *precipitation,* action without due deliberation; *irresolution* or *indecision,* the contrary to precipitation; and *negligence,* lack of solicitude about ends and means.[20] Radically, all of these vices or acts flow from an indiscipline or failure of command in the practical reason itself. All appear at one time or another in the actions of Hamlet. He accuses himself of negligence and inconstancy:

> Yet I
> A dull and muddy-mettled rascal, peak
> Like John-a-dreams, *unpregnant of my cause* . . . .[21]

And the ghost appears a second time to rebuke him for his "most blunted purpose." Lines from the play-within-a-play, which Hamlet himself has written, are also by implication self-accusatory:

> Purpose is but the slave to memory
> Of violent birth but poor validity,
> What to ourselves in passion we propose,
> The passion ending doth the purpose lose.
> The violence of either grief or joy,
> Their own enactures with themselves destroy.[22]

The anatomy of the flaw is intimated very early in the scene with the ghost. He tells his father that henceforward he will think only on revenge, will banish from his mind "all saws of books," etc.; yet in the very act of speaking he falls into a reflection on the psychology of villainy: "My tables —meet that I set it down" (if the stage direction is authentic he actually does write it) "that one may smile and smile and be a villain. . . ."[23] A similar note is struck later in the "How all occasions do inform against me" soliloquy. Fortinbras' army reminds him of his blunted purpose, but it also occasions general reflections on heroism in foolish things, "expos-

[19]Aristotle, *op. cit.,* 1389a, b.
[20]*Summa Theol.,* II-II, qq. 53, 54.
[21]II, ii.
[22]III, ii.
[23]I, v.

ing all that's mortal and unsure . . . for an eggshell."[24] We will have something more to say about this tendency to philosophical distraction when we deal with Hamlet's "madness." But at least it suggests the root cause of his *negligence* or *inconstancy.*

Irresolution of mind is evident in what Hamlet says and does. When told of the murder he shows no doubt about what must be done. Later, however, a "craven scruple" has crept in regarding Claudius' guilt. Conscious of the "tempest" within his own soul, he thinks the devil may be tempting him. But when the play has confirmed the king's guilt, indecision still remains: "Whether it be bestial oblivion or some craven scruple of thinking too precisely on th'event . . . I do not know why yet I live to say 'this thing's to do.' "[25]

The correspondences between Hamlet's actions and the pattern of imprudence are not limited to the failed act. The quarrel with Laertes and the failure to kill the king bear directly on the final catastrophe, and imply both *immoderation* and *precipitation.* Hamlet's motives for sparing Claudius have always been somewhat puzzling. Does he really desire his damnation, or is he only rationalizing an unconscious repugnance? Or is the scene required by the conventions of the audience? Very probably all of these things are involved. Demanded by convention and the dramatic structure of the play, the scene also makes sense in terms of other things we know about Hamlet. There is the warning of the ghost against the corruption of a just revenge by the poison of personal hatred: "But how-so'er pursuest thou this deed, taint not thy mind."[26] And in preceding scenes there is ample evidence that Hamlet has allowed his mind to become tainted. He tells Horatio that his imagination is "as foul as Vulcan's stithy," and his behavior toward Ophelia obviously goes beyond the intention to dissimulate madness. The desire to damn Claudius, although immoderate (it is not, strictly, *unjust,* but unmerciful or presumptuous), is thus compatible with a tainted mind. The tainted mind is itself compatible with an unconscious or semi-conscious scruple about the killing of Claudius. Before he hears of the murder he is ill-disposed toward his uncle, not only on Gertrude's account but also because he has "popped in between th'election and my hopes:"[27] whence doubts of his own motives.

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[24]IV, v.
[25]IV, iv.
[26]I, v.
[27]V, ii.

And even before Freud's discoveries, acute observers knew of "over-compensation:" there is no reason why Shakespeare with a poet's insight could not have intended a certain ambivalence in Hamlet's motives (guilt in doing/guilt in not doing). In any case, his stated motive, Claudius' damnation, implies *immoderation.*

The quarrel with Laertes is interesting not only because, like the killing of Polonius, it indicates *precipitation,* but also because of the characteristically reflex psychology. One might expect the vehemence of Hamlet's feeling to come from grief over Ophelia, except that he tells Horatio: "Sure the bravery of his grief did put me in a towering passion."[28] Over-compensation may again enter the picture. But Hamlet's moral indignation at the excessive in other people's behavior (Polonius' verbiage, the airs of Osric, Gertrude's lust, the intemperance of the court) is a familiar pattern. That Hamlet's excess should be prompted by the excess of Laertes thus gives the scene a special dramatic irony. And the action itself is an image of "precipitation:" Laertes and Hamlet both leap into what foreshadows their common grave.

So far, we have been interested in the similarities between Hamlet's behavior and the phenomenology of imprudence. Hamlet's "madness" raises questions of another order. Is he really responsible for his actions?

> Was't Hamlet wronged Laertes? Never Hamlet
> If Hamlet from himself be ta'en away,
> And when he's not himself does wrong Laertes,
> Then Hamlet does not, Hamlet denies it.
> Who does it then? His madness. If't be so,
> Hamlet is the faction that is wronged;
> His madness is poor Hamlet's enemy.[29]

Granting the diplomacy in the speech, it nonetheless appears here and elsewhere that Hamlet feels himself exonerated to some degree. Is the "madness" genuine insanity? If it is, the play is a case history, not a tragedy. But if not insanity, then what precisely? And how can mental or emotional imbalance be a defect in prudence?

Ostensibly, Hamlet is feigning madness. Yet here too there is "ambivalence." In part prudent dissimulation (under similar circumstances, David feigns madness among the Philistines at Gath), it is also an occasion for releasing pent up emotions and the exasperation that gnaws

[28] *Ibid.*
[29] *Ibid.*

at him internally. His "madness" comes too naturally, and clearly more is involved than dissimulation. Still, it is not genuine insanity. In spite of what Hamlet says, the madness never goes beyond the bounds of a "normal" melancholy and euphoria. Lear's madness is quite different, and so is the real madness of Ophelia.

What is it then? Essentially it seems to be emotional shock coupled with a *rational horror* at the disorder around and within him. To have a father murdered by an uncle and a mother enter into an incestuous union with the uncle is sufficient grounds for a major psychological upheaval. The graveyard scene with the skull of Yorrick (so dear to the romantics) suggests that the happy innocence of Hamlet's childhood and youth has become a charnel pit inhabited by decay and the ghosts of the dead; like the "lost childhood" with which Graham Greene has made us familiar: "For O! for O! the hobbyhorse is forgot."[30] Ophelia's ingenuous charm has accordingly become an occasion for bitterness, the bright universe a "foul and pestilent congregation of vapours," and man, "so noble in reason," appears to Hamlet as "the quintessence of dust."[31]

The important thing is the *moral* dimension of this "death of innocence." Hamlet himself is "noble in reason," has strong moral feelings, and keen insight into men and the world. Over and above the personal loss he feels dismay at the sudden discovery of moral corruption in his family, in Denmark, in the world, and within his own soul. Even Ophelia, guided, no doubt, by the "prudent" Polonius, sees nothing amiss in the incestuous marriage of the Queen. Possibly the songs she sings in her madness are intended to convey—with a suggestion of blighted innocence—something of the Danish court's influence upon her, and perhaps to suggest that she may not have heeded her brother's and father's warning about Hamlet. Hamlet is appalled, too, at his own "horrible imaginings" and the "bestial oblivion" to which he finds himself subject. As we know, practical wisdom is not the only fruit of insight and experience. Life's contingencies can also be overwhelming and so at variance with moral values as to shock the foundations of a man's moral and intellectual life.

Psychologists speak of a "catastrophic reaction" brought on by battle-fatigue and other traumatic experiences. Here, events have so shocked the framework of the patient's personal world, his inner "cosmos," that his normal response to reality is entirely blocked. It is in a state of catatonic

[30] III, ii.
[31] II, ii.

inactivity. Hamlet's "madness" is remotely similar but differs as the normal from the pathological. Altogether, the Danish situation is too much for his reason to assimilate in an organic and disciplined fashion. The moral chaos he contemplates finds a powerful echo in his own soul, and a "catastrophic paralysis" of his reason prevents full command either of itself or his emotional responses to events.

Yet, as a *human* fall, tragedy must in some sense be *rational and deliberate;* and, if what we have said is correct, Hamlet would not seem to be responsible for his failure. But there are two standards by which human failure can be judged, depending upon the way in which human nature is conceived. On the one hand there is the abstract potentiality of the rational creature, "So noble in reason." On the other there is the weakness and limitation of fallen man as he is in the concrete. Elements in the play itself suggests this double perspective. Hamlet's disgust with the world around him presupposes (and dramatically requires) an image of human nobility ("What a work of art is a man"[32]) more than once given expression. And the dead king who is described as a model of virtue is, nonetheless, condemned to expiate in purgatory the deeds done in his "days of nature."[33] The measure of a tragic fall need not be "what could be expected under the circumstances," but human nature conceived in terms of its noblest potentialities. This measure is actually given in the play. From this point of view, *Hamlet,* like *Oedipus Rex,* touches on the theme of original sin.[34]

This double standard is given psychological expression in Hamlet. Implied in his near-despair and meditations on human nobility is precisely that his conception of men has not been realistic enough. Of Gertrude it is said that the king "would not have the winds of heaven visit her face too roughly,"[35] and a similarly sheltered existence is implied with regard to Hamlet. At any rate, he has a predilection for judging things from an abstract and "absolute" point of view: every event is an occasion for philosophizing or moralizing. Thus the "experience" of original sin—in the discrepancy between capacity and performance—is concretized in Hamlet's character. Yet the cause of the failure is not merely an hereditary defect. In spite of the ghost's warning, Hamlet permits his mind to dwell on the

[32]*Ibid.*
[33]*Ibid.*
[34]Walter Kerr, "The Spiritual Struggle in Oedipus Rex," *Cross and Crown* (June, 1951).
[35]I, ii.

very things which would be most likely to taint it; and it is this morbid contemplation which leads eventually to the "madness." Thus the fall is not simply a question of the discrepancy between ideal and reality, or of insufficient experience. The trouble begins not in action but in contemplation, and for this failure Hamlet seems clearly responsible.

His responsibility is emphasized dramatically by Fortinbras and Laertes, "normal young men," who lack Hamlet's capacity to grasp and dominate a difficult emotional and psychological problem. Nor is Hamlet's philosophizing mere idealism or romanticism: he has the *ability* to see his way through the crisis. That he does not do so is attributable to a flaw in character for which he is, in the last analysis, responsible. But we do not mean to overemphasize "responsibility." Tragedy and culpability are not the same thing; and a character who is too crassly or wilfully guilty (like Iago) is not a tragic figure but a villain. The *degree* of Hamlet's responsibility is not, therefore, the issue. But his fall is a *human* fall, his story *tragedy,* not pathology.

The central role of "madness" in Hamlet's motivation shifts the emphasis from the sphere of action, the sphere of the moral virtues, to that of contemplation. How, then, is the defect a *moral* failing? The answer is that prudence has both an interior and an exterior aspect or moment. As practical wisdom it not only directs exterior actions according to the rule of reason, but also the contemplative and rational acts which such direction presupposes. Besides ordering and commanding desire and the faculties of action, prudence orders and commands reason itself in the practical exercise of its act. If reason's self-command is defective, desire rules both reason and the faculties of action, leading to the situation described by Hamlet himself:

> What to ourselves in passion we propose
> The passion ending doth the purpose lose,
> The violence of either grief or joy,
> Their own enactures with themselves destroy.[36]

Hamlet's "tainted mind" is a radical disorder of the practical reason, and hence a radical defect in prudence.

There is one qualification. Ordinarily imprudence is incompatible with nobility which implies rational command. But Hamlet's task and

[36] III, ii.

the difficult circumstances associated with it (for example, his moral sensitivity and the Danish corruption) is precisely the sort of thing where a non-noble youth could be expected to fail (or else, like Laertes or Fortinbras, carry it unreflectingly through, oblivious of moral scruple.) His failure is a human failure only if we consider his nobility. Hence we would say that the tragic flaw in Hamlet is a *nobility defective in prudence,* or *imprudent nobility.*

In a certain sense the defect grows out of the very nobility of Hamlet's character. For the generality of men, imprudence stems from speculative incapacities, deficiency of moral values, or a lack of insight and foresight regarding the contingencies of experience. In Hamlet the reverse is true. His defect of rational self-command is occasioned by his intellectual perceptiveness whose quickness, scope, and depth lead to a kind of rational and emotional exuberance prejudicial to discipline and control. Excess of *counsel* leads to paralysis of *command.* Claudius says:

> For goodness growing to a pleurisy,
> Dies in his own too much. That we would do
> We should do when we would; for this "would" changes
> And hath abatements and delays as many
> As there are tongues, are hands, are accidents.[37]

Prudence in the Minor Actions and Characters

In the foregoing pages, the emphasis has been placed on what appears to be the dominant note in the theme of the play: the relation of *experience* to the tragic action. But the theme has many other elements connected with the notion of prudence which have either not been mentioned at all or only indirectly. Guilt and innocence, the opposition between reason and desire, between thought and action, between social values and personal moral insight, and the contrast between youth and age, are other major reflections of the theme developed in the course of the play. Space prevents us from giving due attention to these factors; but we shall suggest very summarily the bearing some of them have on Hamlet's character and the play as a whole.

The theme of counsel in the play as a whole. The principal acts of the virtue of prudence are *counsel, judgment* and *command.* As we have seen, the tragedy consists in a kind of excess of counsel (the most speculative

[37] IV, vii.

of the three) with a consequent paralysis at the level of judgment and command. It is therefore appropriate that most of the play should be taken up with various expressions of counsel and reflection. Once noticed, the ubiquity of this theme is striking. We mentioned earlier the difficulty which the theories of Robertson and Eliot, or the Romantics, have in accounting for scenes like the leavetaking of Laertes. But from the notion of the tragic theme as we have described it, the scene is an excellent "reflection" of the play's principal action. What "happens" is, in effect, a series of moral exhortations, none of which are likely to be realized in action. Laertes warns Ophelia about Hamlet, Ophelia advises him to heed his own warning, the scene ending with an exhortation by Polonius to each. A similar pattern recurs again and again in the course of the play. Claudius, a prudent man in his own carnal fashion, counsels Hamlet about the dangers of excessive grief, handles the threat from Fortinbras by the medium of advice (though the young man's uncle, "Old Norway"), and also wins Laertes to his cause by a speech on filial devotion. Polonius, the "counsellor," embodies the popular misconception of prudence ("this above all, to thine own self be true") in the form of worldly wisdom. And Hamlet himself contributes his full share of advice—his lectures, for instance, to Gertrude and Ophelia. This is not to deny that moralizing is frequently met with elsewhere in Shakespeare. But in Hamlet it largely defines the action, and is nearly always a matter of direct advice, more or less abstract, which is either not heeded or not likely to be (or else, like the counsels of Claudius, ought not to be). Its dramatic function is to provide the atmosphere of speculative or rational excess so congenial to the theme of the play and the character of the principal: "For goodness growing to a pleurisy, dies in his own too much."

The theme of *prudence in the minor characters:* 1. *The men (reason).* By contrast or similarity all the men in the play seem to reflect or develop aspects of the character defect in Hamlet. *Laertes* embodies the rashness (precipitation) of Youth, as common as Hamlet's reflectiveness is rare. *Fortinbras,* as his name suggests, represents command and action untrammelled by any pale cast of thought. *Rosencrantz, Guildenstern* and *Osric* are youths who have replaced the values of a corrupt society for the rule of reason as their guiding norm. *Polonius* represents conventional, "worldly" prudence; *Claudius,* carnal prudence. *Horatio,* Hamlet's one friend, is true prudence, though he has a certain dullness about him which, by contrast, emphasizes Hamlet's mercurial nobility. Finally, there is the

dead king who, if Hamlet's praises come close to the mark (and they seem to), is the embodiment of kingly, *regnative prudence.*

King Hamlet deserves more attention than he usually gets. Like T. S. Eliot's Tiresias (for *The Waste Land*), he represents in a certain sense the *substance* of the play. As king, father, and husband, he combines in one person three figures or symbols of *rational dominion.* The words used to describe him are thematically identical with those used elsewhere in the play to describe the nobility of man and human reason:

> See what a grace was seated on this brow,
> Hyperion's curls, the front of Jove himself,
> An eye like Mars, to threaten and command,
> A station like the herald Mercury,
> New-lighted on a heaven-kissing hill,
> A combination and a form indeed
> Where every god did seem to set his seal
> To give the world assurance of a man.[38]

Symbolically, his murder is "the abolition of reason's dominion" in the state. What follows is a kind of social madness: corrupt reason rules in the person of Claudius (a vice of kings, a cutpurse of the empire and the rule); the Queen is morally insensitive, and Hamlet, the son and heir, hovers on the verge of despair with only the ghost of reason to guide him.

2. *The women (passion).* The Queen and Ophelia reflect passion's part in the drama in a way similar to that in which the dead King reflects reason's dominion. *Gertrude* embodies one aspect of the ambivalence implied in "experience." Experience leads, from one point of view, to practical wisdom; in a noble prince it should lead to the perfection of regnative prudence. From another point of view—in relation to passions divorced from the guidance and discipline of reason—it leads to that death of innocence and to bestial oblivion found in Gertrude. As Hamlet's mother she connotes some of the tendencies of passion, under the impact of experience, in her son. This suggests that Hamlet's bitterness toward Ophelia arises in part because she is the occasion for a "bestial oblivion" which threatens to engulf his sense of responsibility. His "lady may I put my head in your lap,"[39] though a small line, is nonetheless (by accident or design) a good figure of one element in his conflict. And Hamlet says he will "play the hypocrite" when he goes in to lecture his mother on lust.[40] He tells the Queen:

[38]III, iv.
[39]III, ii.
[40]III, iv.

> Oh, shame! Where is thy blush. Rebellious Hell,
> If thou canst mutine in a matron's bones,
> To flaming youth let virtue be as wax
> And melt in her own fire. Proclaim no shame
> When the compulsive ardour gives the charge,
> Since frost itself as actively doth burn,
> And reason panders will.[41]

Ophelia's madness quite evidently has a dramatic function in relation to that of Hamlet. In contrast to Gertrude, she reflects the fragility and chaotic tendencies of passion lacking both reason and experience. She has no mother, then loses both a father and a prospective husband (reason-in-a-father: reason-in-a-husband). The consequence is fullblown insanity, which, as elsewhere in Shakespeare, represents the self-destructive tendencies of passion deprived of reason's dominion: Hamlet's madness carries with it a temptation to suicide; her's leads to actual self-destruction. Ophelia thus reflects a thematic development of the "catastrophic reaction" and the "death of innocence" so important to an understanding of Hamlet's character.

We have made no attempt to justify our use of symbolism (the men: reason, the women: passion) regarding the reflective function[42] of the minor characters. This *natural symbolism* can, we believe, be justified from the point of view both of natural poetic associations and of Shakespeare's actual use of male and female characters. But space will not permit us to do so. We hope, however, that the very summary indications given will serve to suggest the bearing that prudence has on the play as a whole. Among other things, the minor characters, together with Hamlet himself, supply all that could be desired in the way of those "objective correlatives" which T. S. Eliot was looking for and failed to find. If anything, the theme of prudence is "over-represented"—to use a Freudian term— but such thematic concentration is precisely the language of poetry.

Conclusion

Let us admit that, like all explantion in art, this one cannot help being somewhat odious: plays are to be enjoyed or experienced, not analyzed. But after all our aim was not so much to dissect Hamlet's personality as to find a focal point from which the thematic unity of the play

[41] *Ibid.*

[42] For Shakespeare's use of the minor characters in *Hamlet* as "Jamesian reflectors," cf. Francis Fergusson, *The Idea of a Theatre* (New York: Doubleday and Co., 1954), ch. 4.

and the character of the principal would come to light. "Imprudent nobility" seems to offer such an angle of vision. Not only does it suggest a psychologically consistent account of Hamlet's words and deeds, it also suggests the nature of the play's essential theme—the poetic unity of character and action, of the principal and the minor characters. Only a more detailed application of our thesis would be adequate to the magnitude of the problem. Yet the thesis itself seems a fruitful point of departure: prudence is a virtue no less subtle and complex than Hamlet's personality. Other theories have done a great deal less than justice to Hamlet and to the poetry of the play. If nothing else, we have managed to show that neither is so inexplicable psychologically or dramatically as some would have us believe.

Hamlet is not, we repeat, a mere *character type*. Like Macbeth's ambition, Hamlet's defect is, on the face of it, improbable: he is truly noble, and, for a young man, exceptionally wise and capable. Hamlet's imprudence is not an obvious tag but a germ of disorder, a "hidden impostume" which gradually reveals itself under the pressure of events. Like Macbeth's ambition, Hamlet's flaw wears the stamp of reality. It is the kind of tragic flaw for which we have an immediate, connatural understanding, because so like the defects we find in those we know best, in our friends and in ourselves.

Hamlet's tragedy has *magnitude*. The virtue of prudence is the keystone of man's moral life, the point of contact of reason and desire, thought and action, the social and the personal, the place in man's soul where his response to life becomes deliberate, free and fully human. In a real sense, all tragedy is a matter of defective prudence, though it may be more obvious in plays like *Hamlet* and *King Lear* than in *Macbeth* or *Othello*. To connect the theme of the play with prudence is not, therefore, to "explain" it as a play, or to perform an autopsy on the protagonist. It is only to recognize the depth and universality of the theme which Shakespeare dramatized in *Hamlet*. If the theme of *Macbeth* is ambition and of *Coriolanus* pride, then in *Hamlet* the theme is that of tragedy itself.

Celestine Walsh, O.P.

HOW TO LEARN A LANGUAGE

MUCH VALUABLE TIME CAN BE WASTED in the study of a language. The following paper contains some practical suggestions based on a consideration of the psychology of language which are meant to help the student make the most efficient use of his study time and avoid the most common errors in method. The most serious error in language learning can be illustrated in an example of the thought-pattern of the average Latin student faced wtih the problem of translating a line of Virgil's *Aeneid:*

"Hauriat hunc oculis ignem crudelis ab alto Dardanus. . . ."

" 'Hauriat' looks like a verb. Where's the subject? 'Dardanus' seems like a nominative. The dictionary says it's fourth conjugation and means 'to draw water.' 'Let the Greek draw water.' Why's 'ignem' accusative? Maybe accusative of respect. 'Let the Greek draw water as to the fire.' 'Crudelis oculis' go together, because they both end in '—is.' 'With or by cruel eyes.' 'Ab alto' means 'from the high one.' It doesn't make sense. Just remembered, 'crudelis' is third declension; it must go with 'Dardanus.' The dictionary says 'haurire' also means 'to drink in.' 'Ab alto' must be 'from the deep.' All other things being equal, the sentence must mean: 'Let the cruel Greek drink in this fire with his eyes from the deep.' "

Learning Latin today is like taking a course in crossword-puzzles. The student is equipped with a few Latin words and a staggering number of grammatical terms, and set against the usual foes. If he persists, he deciphers his way through college and gets his B.A. in cryptology.[1]

[1]Modern teaching methods based on research and experience in the fields of psychology and education are excellent, but much work remains to be done in the teaching of Latin and Greek. After only a few months of study, students of a modern language can read their textbook intelligently and carry on ele-

Years later, he remembers only a few items like the accusative of exclamation, "o tempora, o mores." Before considering how to remedy this situation, it will be necessary to make a brief examination of the language process itself; lastly we shall propose a method designed for the student who wishes to acquire quickly a reading knowledge of a language.

Language is an instrument. It is a means to an end. Conveyance of thought is the end; language is the instrument whereby thought is communicated. When a language is taught, it must be taught as an *instrument.* When it is taught as an end in itself, it is no longer a language course, but more like a course in philology. There is a great difference between the two. In a language course the student learns to understand many words; he is made to "feel" inflexion, syntax, and word-order. The philologist studies comparative morphology and grammar, linguistic influence, etc. Philology is a speculative habit, whereas the language habit is a skill, relying much more on the internal senses.

An interesting passage in *De Veritate* can serve as a starting-point in our study, where St. Thomas remarks that there are three distinct types of words we use when we speak or understand the spoken word: 1) the *concept* ("verbum cordis") in the intellect, 2) the *word-image* ("exemplar exterioris verbi") in the internal senses, and 3) the *external word* ("verbum vocis") actually produced by the vocal apparatus.[2] Corresponding to the concepts stored in the intellect, there is a set of word-images stored in the internal senses. Whenever we think, our cogitative power, under the direction of the intellect, collates these and other phantasms so that the intellect can abstract universal ideas. When we voice our concepts, the vocal apparatus is imperated to produce the external word. When we hear

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mentary conversation. Latin and Greek students hardly ever achieve this ability. The reason is not that Latin and Greek are so very much harder; the fault is that the professors over-emphasize the scientific aspect and fail to bring their teaching methods into conformity with the principles of psychology. In the way of practical suggestions, the following points seem necessary in order to increase the effectiveness of Latin and Greek courses: A *more direct approach,* aimed at instilling a habit in the internal senses, would enable the student to learn the language better and more naturally. *Easier beginning texts,* and more of them, should be used to provide adequate inductive material and supplement the heavier classical passages. Above all, the courses must have *stricter requirements.* These will insure the student of sufficient vocabulary and the grammatical facility necessary to afford him satisfaction in the use of the language.

[2]*De Veritate,* q. 4, a. 1.

someone speaking, the word-images are processed by the internal senses and presented to the intellect which makes the proper universal abstraction.

Concepts are much the same for everybody, independent of a particular language. However, word-images, and, of course, external words differ according to language. Thus for example when a Frenchman says "j'ai soif" and a Spaniard "tengo sed," they mean substantially the same thing, but the words, both internal and external, are obviously different. It follows, then, that language pertains largely to the internal senses as well as to the intellect. Although it is true that the mind guides speech conceptually and the will imperates its function, much of the burden rests on the cogitative power in conjunction with the other internal senses.[3]

Hence in order that a new language operate naturally and spontaneously, a new set of word-images, with the proper inflexions and syntactic relations, must be introduced and thoroughly exercised in the internal senses. If the role of the intellect is over-emphasized, an unnatural translation habit will develop. Instead of the intellect abstracting from a rapid flow of phantasms, it will have to avert explicitly to considerations of grammar and vocabulary. The mind can be occupied with only one thing at a time. If the reader must use his intellect to figure out case-endings, tense and mood, word-order, etc., he cannot concentrate on the thought expressed. Two actions will be performed: first translation, then understanding.

Like any other habit, a language is acquired by repeated acts; *repetition* is the most essential means to learning a language. Trite as it sounds, students often fail to realize the importance of this fact. It is the common fault of the more gifted intellectually to disdain the monotonous practice absolutely essential in learning a language well. Many consult the dictionary on a troublesome word, apply its meaning to the text, and immediately go on reading. The next time they encounter the word, they have already forgotten the meaning, and must refer to the dictionary again. If they acquire any ability at all, they spend most of their time reading the dictionary. An unfamiliar word should be *repeated aloud* in its context until its meaning is actually "felt" in relation to the other words in the sentence. Memorizing vocabulary is by far the most tedious aspect of learning a language. Hundreds of words must be so thoroughly

[3]Only the barest outline of the language-process and its relation to the act of cognition has been attempted here; to give a detailed description with the many necessary distinctions is impossible in a short paper.

ingrained in the internal senses that the mind will immediately respond to their presence when activated by external stimuli. This spontaneity can be achieved only by repetition.

If vocabulary pertains to the act of simple apprehension, by which the mind intuits the meaning of word-images in the internal senses, syntax follows upon the second act of the mind, judgment, by which the mind recognizes relationships betwen these words. Syntactic as well as verbal "nerve-channels," corresponding to judgments and concepts in the intellect, must be established in the internal senses. Here again, repetition is the only means by which this can be accomplished. When studying syntax in a grammar, the student should give much more attention to the *examples* than to the explanations. Grammar is simply a collection of universal statements about word relationships. It is less important to be able to speak about these relationships in a technical meta-language than to possess them as a habit in the internal senses. It is, of course, necessary to understand grammar in a theoretical way, but this is only the first step. At times the intellect must be occupied with grammatical considera-itons, especially with difficult languages like Latin and German, but after the problems are cleared up, time should be spent repeating the sentence aloud until the intellect can abstract the meaning without translation. To insure understanding of the text in the original, it is helpful to speak the sentence so quickly that a translation will not be possible. The attempt to acquire fluency or an ability to understand the spoken word will be entirely frustrated if the mind is preoccupied with translation.[4]

In language work two virtues are indispensable. The importance of *perseverance* should first be noted. How many students, perhaps after years of studying a language, relax their efforts before they have the necessary skill to use it? Hours and hours of memorizing word-lists and working exercises are utterly wasted. A little information acquired in history or literature can be of value, but a little knowledge about a language is absolutely useless. Before a student begins to study a language, he should make a firm resolution not to stop until he has thoroughly mastered it. *Patience* is next in importance. There are short-cuts to learning a language, but there is no easy way. The student must resign himself to the fact that he has a challenging task ahead of him. Good instructors,

[4]To develop fluency in speaking a language, in addition to a passive habit of recognition, an *active* habit of spontaneous word formation must be emphasized. To accustom the mind to function from foreign word-images, it is indispensable to *think* or 'talk to one's self' in the foreign language. After the tendency to translate has passed, the process will become automatic.

modern books, records, flash-cards, tape-recorders are helpful, but it is the student himself who must bear the pain of forming a complicated new language habit. The period of time required to acquire a language will obviously vary according to the capabilities of the student and the amount of time he can afford to devote to his study, but in any case, the work is going to be long and hard.

Three-Point Reading Method

Since there are many who seek merely a reading knowledge of a language and for whom a speaking ability is not necessary, it will be advantageous to outline a reading program streamlined for speed and utility. It consists of three stages, not meant to be rigidly defined; rather in each there is merely one aspect to be emphasized. In the first the student endeavors to get a view of the language in general; in the second, he *learns* the language; and in the third, he adds the final touches. This method corresponds to the principles of Thomistic pedagogy as well as to the natural way a child learns a language: first, the confused view of the whole, the period of familiarization (the child learns simple speech); second, the study of the parts, the period of reading (the child learns to read); third, the perfect view of the whole, the period of grammatical analysis (the child studies grammar).

The student should begin his study by reading through a grammar, noticing the peculiarities and difficulties of the language, and acquainting himself with the fundamentals: inflexion, word-order, adjectival and pronominal systems, etc. The purpose of this initial stage is to prepare him for reading, for it is by reading that he will master the language. This period will, of course, vary according to language; it will be shorter for the romance group and longer for German, Greek, and Latin.

After the student feels he has sufficiently acquired a general picture of the language, he should obtain an interesting book and begin to read. At first, progress will be slow; perhaps he will spend more than a half-hour on each page. But after a few hundred pages, his reading speed will increase remarkably. He will benefit from meeting words in context in two ways. First, because his contact with the language is much more natural, he will find it easier to remember the words. Secondly, by seeing words in their natural setting, the connotative value of his vocabulary will be enriched. The necessity of personal wrestling with textual

problems will develop his self-reliance.

A translation should not be used at first; it would be advisable to wait until the second or third book to be sure that the student understands the foreign text and not the English translation. Contrary to the widespread opinion, it does not seem helpful to use the New Testament or any other book with which the student is familiar. There is too much danger that the intellect will be functioning from English word-images, merely recalled by the foreign text. An efficient language habit can hardly be acquired in this way.

It is most important to read aloud. Since our language physiology is constructed to be developed orally, the best way to remember words is to hear them. It is not necessary to spend a great deal of time memorizing words of high frequency; they will occur often enough to insure sufficient inductive repetition. The student should always be sure that he understands what the author of his book wishes to express, learning from the beginning to consider language a mere means to an end.

After sufficient reading ability is gained, greater emphasis can be placed on the scientific aspect of language. A theoretical language habit can then be developed without danger to the natural learning process. A study of grammar will be much more rewarding for one who already has an extensive, rich vocabulary and who "feels" foreign thought-pattern, than for one who is just beginning. In this way the language habit, developed through a process of natural induction, is unified and perfected by a methodical analysis of grammar and historical philology.

Kieran Redmond, O.P.

THE ATOM AND NATURAL PHILOSOPHY

WHEN ARISTOTLE INITIATED HIS STUDY of the physical world and proceeded to give us his magnificent *Physics,* it was he who realized, more than anyone else, how few of nature's secrets had been uncovered. His master plan was but a beginning. Physics was not to be completed until the basic method had been applied to every species of natural things and had unveiled their essences. The Philosopher had merely pointed out the way; it was left to his disciples to search for an ever deeper understanding of the changing universe. Aristotle himself made many plunges into the vast undertaking, as his prolific volumes on special physical subjects manifest. But since he was burdened by a weak technology of observation, his view for all its magnificence remained blinded to a multitude of wonders and mysterious intricacies of the harmonious handiwork of God.

Only recently have these technological blindfolds been unwound. Day by day the vision of nature appears more radiant and more complex. The physical world unlocks her hope chest, stunning the weak minds of men by revealing secrets in such profusion that a single intellect cannot learn them as fast as nature recites her list of wonders. It is a work of generations to comprehend these marvels of nature opened to our gaze by the modern scientific method. Aristotle's heart would have rejoiced to see the abundant fruit this scientific method has borne from its union with modern technique. It should be remembered that the postulational method of hypothesis and observation was part of his plan; the new physical facts it reveals enable man to understand further the essences of natural things.

Physics is not perfected with facts alone. Man observes, and is gladdened. But his mind seeks more: it must know not only how a thing operates, but what it is, and why it acts as it does. Man desires to understand the nature, the essence, of the thing he observes. Aristotle realized this bent of the human mind and provided for it. He knew that we reach understanding of a thing by piercing into its operations to discover properties, into its properties to discover the nature which is the root of the properties.

It is the purpose of this paper to consider facts that modern science has uncovered about the atom, and to search for an understanding of the nature of the atom by using the method of Aristotle. We hope to see the atom not merely as a quantum crossword puzzle of mysterious operations, but as a natural unit of the universe behaving according to its nature. We shall view the atom as a physical *reality*.

In beginning our study of the atom we must first of all look at our methodological road map to see where we are and where we are going. Our general and vague knowledge of the atom shows it is a mobile being, so the atom is studied in Physics, the Science of Nature. And since the atom is a particular type of changeable being it is treated under Special Physics. Indeed, the atom seems to be a fundamental part of mobile being, that is, the atom is one of the elements of the science of mobile being. Now, where are we going, and what road must we take? We are seeking a definition of the atom which shall reveal its nature. From this definition the various properties are to be demonstrated. Following the method of Physics we must ask four questions: is there such a thing as an atom [*an sit*], what sort of a thing is it [*quale sit*], what is its nature [*quid sit*], why is it so [*propter quid*].

The Existence and Qualities of the Atom

Is there such a thing as an atom? We know a thing exists either by evidence—when we meet it—or by knowing it has a necessary cause. We do not know any cause which demands the existence of the atom, so we must depend upon evidence. Since nature has hidden the atom from our immediate observation, we can know it exists only by indirect evidence. Fortunately we have such evidence. The laws of constant and multiple proportions from chemistry, the structure of the crystal deduced from the study of X-ray diffraction patterns, and several other experiments suf-

ficiently prove the existence of tiny discrete particles in matter. These particles have been named "atoms."

J. L. Proust established experimentally in 1799 the law of constant proportions. He saw a concrete example of Aristotle's dictum, "nature is determined *ad unum*." It is indeed a remarkable fact that when water is broken into its elements, there is always 11.19% hydrogen and 88.81% oxygen. When we decompose copper oxide the result is always 79.9% copper and 20.1% oxygen. Proust analysed several compounds and always found a definite proportion of elements in each compound. He formulated his law: "A particular compound always contains the same elements chemically united in the same proportions by weight."

The law of multiple proportions, established by John Dalton and verified in numerous accurate experiments by Berzelius, states another remarkable fact in chemistry: "When two elements, A and B, unite to form more than one compound, the masses of B which unite with a fixed mass of A stand to each other in the ratio of whole numbers, which are usually small."[1]

We can see how these laws of proportions manifest the existence of the atom if we state the facts in slightly different words. Any composed body whose weight is an integral multiple of minimal weights in recurring proportions must be made up of elemental bodies having a basic unit weight. Ten pounds, nine pounds, eight pounds, five pounds—such a series demands that there be units of one pound. This is basically how chemicals unite. A chemical compound, then, is made up of elemental bodies of unit weight. These building blocks, the natural units of chemical operation, are what we call atoms.

What sort of a thing is the atom? Here we must list the accidents of the atom, for they reveal its properties. From these properties or attri-

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[1]In compounds of nitrogen with oxygen, for example, the following proportions are found:

Compound	(1)	(2)	(3)	(4)	(5)
Nitrogen	63.65%	46.68	36.86	30.45	25.94
Oxygen	36.35	53.32	63.14	69.55	74.06
	100.00	100.00	100.00	100.00	100.00
Parts oxygen for ten parts nitrogen:	5.7	11.4	17.1	22.8	28.5
Relative quantity oxygen:	1	2	3	4	5

butes we select the most evident basic property, the one on which the other attributes depend. Then we are led to a knowledge of the nature of the atom as the root of the properties, and can formulate a physical definition of the atom. This definition, in turn, is to be our middle term in demonstrating the properties. Let us now unveil the atom and examine it thoroughly to see its accidents and its properties. We shall study the outside first, or the whole atom, then go inside and look at its parts.

Every atom as a whole has its own particular way of acting, and this action indicates immediately a number of attributes which are signatures of its nature. First there is the active and passive property of valence, or chemical affinity, which is characteristic for each element. Then we must note the passive properties of specific weight, specific heat, conductivity, magnetism (in some elements), and chemical activity, or readiness of the element to enter into combinations. The spectrum of the excited atom is especially significant: the color shown by an element heated or electrified until it glows is unique for each type of atom. To these attributes we must add that the atom, as a whole, is electrically neutral.

When we begin to study the parts of the atom we must again ask *an sit, quale sit,* and so on about the parts. In other words, is the atom homogeneous or structured, and if it is structured, how?

Natural radioactivity reveals that the atom is structured. Certain atoms, notably those of the radium family, have a way of throwing away some of their parts, and these parts have been studied. In some manner the atom contains very dense particles having a determined positive electrical charge—the a-particles, and very light particles having a determined negative charge—the electrons. Rutherford's experiment on the scattering of a-particles by metal foil reveals something of what this structure is. His experiment with a-particles passing through a gold foil approximately 0.0004 cm. thick showed that about one particle in 20,000 was deflected through at an angle of 90° or more, while most of the particles passed nearly straight through the foil.[2] From this experiment, and many later repetitions and precise measurements, the following conclusions have

[2]J. D. Stranathan, *The "Particles" of Modern Physics* (Philadelphia: Blakiston, 1943), 403-410. The minuteness of the atomic nucleus is also manifested by a study of the tracks of a-particles and electrons through gases. Cf. R. A. Millikan, *Electrons* (+ *and* −) (Chicago: University of Chicago Press, 1944), 189-195; H. S. Taylor, *Treatise on Physical Chemistry* (New York: Van Nostrand, 1947), I, 28.

been drawn: 1) the atom is structured, having a nucleus with a diameter in the order of a few times 10^{-12} cm., or about 10,000 times smaller than the whole atom, whose effective diameter is abou 10^{-8} cm.; 2) this nucleus has a very strong positive charge which is equal to the atomic number. Since most of the mass of the atom is contained within the positively charged particles, we must conclude that the atom is a body with a massive center having a strong positive charge, and a rarified periphery.

What is this outer layer, the periphery, like? We know first of all, since the whole atom is electrically neutral, that this rarified periphery has a negative charge balancing the central positive charge. Millikan showed in his oil-drop experiment that electric charges are made up of unit charges.[3] These units he named "electrons" (a name applied in practice to the unit negative charge). The periphery of the atom, since it is negatively charged, is made up of electrons. The experiments of Davis and Goucher on ionization potentials and resonance potentials enable us to qualify the peripheral structure still further.[4]

When an atom absorbs energy, it does so in discrete steps. There is a minimum requirement: helium, for example, will not open its doors to anything less than 19.75 volts. This is called the critical potential. Helium absorbs larger energy bundles in discrete steps, at 20.55, 21.2, 22.9, 23.6 volts; these are resonance potentials. Then helium absorbs a bundle too big for it to manage: at 24.5 volts the block is knocked off its shoulder, an electron is removed from the atom. This leaves a positively charged remnant of the atom, an ion; the energy required is called the ionization potential.[5]

A remarkable pattern appears when we list the ionization potentials of the different elements in the order of their atomic numbers. Hydrogen has a rather small ionization potential, helium has the greatest. When we proceed down the list of elements we find the potential is lower and lower until we jump to a new peak for neon. The pattern repeats itself, showing gradually shrinking peaks for the inert gases, then a gradual decline between peaks until it suddenly jumps for the next inert gas. This pattern manifests a periodic repeating structure in the periphery of the atom.

The distinct steps manifested by the resonance potential shows that the peripheral electrons absorb only particular amounts of energy. Each

[3]Millikan, *op cit.*, 66-89. Cf. Stranathan, *op. cit.*, 49-56.
[4]Cf. Stranathan, *op. cit.*, 229-36.
[5]*Ibid.*, 231.

electron, then, can exist in several possible energy states or "energy levels" which are discrete. An electron which has absorbed extra energy returns as soon as possible to a lower energy level. In its return, the energy it releases is always a discrete amount, and the particular amount of energy radiates from the atom at a definite frequency. Each kind of atom has a specific combination of energy levels in its periphery, so when it is excited the atom emits a characteristic set of waves, its peculiar spectrum.

The importance of the periphery cannot be overlooked, so we must mention a few attributes. The number of electrons in the outer level determines the valence of the atom, and through valence it determines chemical activity. For stability of the periphery, the energy levels must be the lowest possible under given conditions, and the possible energy levels determine the specific spectral lines of the atom. Here we must note that the electrons determine this effect only insofar as they are arranged around the nucleus and determined by the nucleus. The electrons, then, are the instruments by which the nucleus manifests the nature of the atom in this operation.

Another masterpiece of nature is opened to our gaze when we turn to study the nucleus. This central particle is composed in some way of two kinds of smaller particles, the neutron and the positively charged proton of approximately the same mass as the neutron. Evidence has been found of about twenty particles that can be actualized from the nucleus, but they appear to be in the nucleus only potentially, in a melted-down sort of way.[6] The nucleus determines the species of atom, for its neutron-proton combination determines the specific isotope or element the atom shall be. We have seen that by virtue of the nucleus the number and ordering of the peripheral electrons are determined.

It is now time to formulate a descriptive definition of the atom. We might express it as follows: "The smallest corporeal unit of operation, composed of a massive nucleus of neutrons and protons having a definite strong positive charge, and a rarified periphery of electrons, equal in number to the protons of the nucleus and arranged in definite energy levels about the nucleus."

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[6]For a popularized account of recent discoveries concerning the nucleus, cf. M. G. Mayer, "The Structure of the Nucleus," *Scientific American Reader* (New York: Simon and Schuster, 1953), 120; R. E. Marshak, "The Multiplicity of Particles," *Ibid.*, 106-115.

Our final task before discussing the causes and nature of the atom is to determine the basic property, from which our knowledge of the essence of the atom is to be derived. The most evident basic property of the atom is the material composition of the nucleus. This composition seems to be determined immediately by the form of the atom, and through it the form determines the structure of the whole atom as a dynamic physical unit. The atom is constituted in a given species by the form arranging the parts of the nucleus.

The Causes and Nature of the Atom

What, then, is the nature of the atom? We must here determine the four causes and formulate a physical definition through the essential physical parts, the matter and the form. Let us determine first the intrinsic causes, then the extrinsic causes.

The material cause of the atom, the material disposition required, is the aggregate of particles which make up the atom. We can define the atom materially: "The smallest elemental body, composed of a nucleus of neutrons and protons, and peripheral electrons equal in number to the protons."

The formal cause of the atom is the unifying principle which determines the organization of the nucleus, and through it, the peripheral electrons in a specific manner. This principle constitutes the atom as the minimum corporeal unit of operation, and gives it both its stability and its power of acting on other bodies by emitting energy and by chemical action. The form is also the intrinsic final cause, since the atom seeks its own stability.

The extrinsic causes of the atom are its efficient and final causes, and these can be immediate or ultimate. Although we now know that atoms can be generated and corrupted, as happens in natural radioactivity or in nuclear bombardment by high energy particles, still the agent of this change remains obscure. At first glance, the agent of such changes seems to be the excess particles existing in, or forced into, the nucleus. These particles, on further consideration, seem to do no more than provide the unstable conditions which permit the atom to corrupt. The ultimate efficient cause is of course the First Mover.

When we look for the final cause of the atom, we are impressed with definite tendencies in its operations. The atom has a natural tendency to

enter into chemical compounds. These compounds in turn are naturally ordered to life. The chain of final causes rises through the scale of being to man, and finds its ultimate link in the First Mover.

We are now ready to formulate the physical definition of the atom: "The corporeal unit of physical operation whose specific form determines a definite order and number of parts called neutrons and protons organized into a principal part called the nucleus, and a group of peripheral electrons equal in number to the nuclear protons, giving to the electrons the tendency to exist in definite energy states and in particular to tend to the lowest of these states so as to maintain the stability of the whole."

The Demonstration of Properties

How can we use our physical definition to learn anything certain about the properties of the atom? The atom is a natural unit, having natural operations which flow from properties demanded by the very nature of the atom. We must now indicate how the nature of the atom, as expressed in our definition, *demands* the existence of various attributes. The very nature of the atom requires that its parts always tend to the lowest possible energy states. From this natural tendency we can demonstrate many properties. Here we shall consider two important attributes, the spectrum and valence, to indicate how the natural philosopher should perfect his knowledge of the atom.

When a physical system having specific energy states changes from its higher energy states to its lowest possible states, it emits specific amounts of energy. The atom, being such a physical system, must emit characteristic amounts of energy when it falls to its lowest possible energy states. These energy bundles are emitted as radiations of specific frequencies, since frequency of electromagnetic radiation is determined by the size of the energy bundles forming the radiation. This series of characteristic radiations is the spectrum of the atom.

Another important property of the atom is that of valence. Most atoms, after reaching the lowest energy levels possible in their bachelor situations, have only a relative stability. Actually, when a physical system has some parts which cannot reach the lower energy states of that system, it will tend to combine with a system in which these parts are able to reach lower energy states. But most atoms in their single state have electrons tending toward lower energy levels which they cannot enter because the

levels are full. Such atoms will tend to combine with other atoms in which these electrons can attain lower energy levels. Here again the atom finds its natural rest in attaining its immediate extrinsic final cause, and here again we see the nature of the atom at work, "worked up," as it were, and agitated until it reaches its goal.

Many other properties of the atom could be demonstrated here, using the definition as the middle term. It is enough for our purpose to mention a few of these attributes: specific heat, ionization potential, and the ordering of the various species of atoms as we find them in the periodic table.

We have now used the principal facts known about the atom to formulate a tentative definition in terms of general principles. We have begun to see the atom not merely as a system of mathematical relations, but as a physical unit whose operations and fingerprints proceed from its specific nature as a natural object possessed of intrinsic tendencies. Our general analysis of natural things tells us that each has matter and form, a natural tendency to its own completeness and stability, natural powers of affecting other things and of occupying a place in the order of the universe, and a natural dependence on this order of the universe as a whole. In studying this natural unit we have begun to see how these general characteristics of nature are realized in the atom in a specific way.

After discovering the nature of the atom and demonstrating its properties, the next step for the natural scientist is to consider each species of this natural unit according to the same method we have indicated and followed above. He must go on to ask the four questions (*an sit*, etc.) about each of the stable isotopes, discovering their specific natures and demonstrating their specific attributes. The task is a long one. The goal is beyond our horizon, but not until it is achieved shall the Science of Nature be complete. Only then shall we see in its perfection the dream of Aristotle to know nature from heaven to earth, from basic principles down to the ultimate species of the handiwork of God.

Donald Pikell, O.P.

MASS AND ENERGY

TO THE AMAZEMENT OF MANY PEOPLE, both Catholic and non-Catholic, our present Holy Father, Pope Pius XII, has often considered it his duty to treat of the modern scientists' investigations. Since 1941 he has issued sixteen documents on science. His encouragement and development of the Papal Academy of Science has been a source of criticism by those who think that he is overstepping his bounds.

Yet these criticisms have not deterred him from his purpose, which he reiterated again in an allocution delivered only last September:

> There is one basic and current question which claims your special attention. We mean the relationship between scientific experimentation and philosophy. It is a point on which numerous problems have been raised by recent discoveries and studies. Let us say at once that, in general, the honest and profound study of scientific problems not only does not tend to oppose the certain principles of the perennial philosophy, but rather receives from them a light which the philosophers themselves perhaps did not foresee and which in any case they could not have hoped would be so lasting and intense . . . You know how advantageous and necessary it is for a philosopher to deepen his understanding of scientific progress. It is only when he has a clear idea of the results of experiments, of mathematical propositions and theoretical constructions that it is possible to make a worthwhile contribution to their interpretation in the name of the perennial philosophy.[1]

The Holy Father finds two reasons for the study of scientific questions by the Catholic philosopher: to deepen his own understanding of the general principles of Natural Philosophy by extending his study to the intricacies of the natural universe, and to clarify current problems by

[1]Address of Pope Pius XII to the International Thomistic Congress, Sept. 14, 1955, "The Perennial Philosophy and Modern Sciences," *The Pope Speaks* (Autumn, 1955), 218 and 225.

the application of these general principles. The Pope himself has taken the initiative in directing the attention of all students of nature to the contribution which the perennial philosophy can make in these times.

To achieve his purpose the Holy Father has appealed for an understanding of the modern scientists' discoveries and an integration of this knowledge into the fabric of human learning. Today human knowledge extends to the innermost recesses of material reality, the sub-atomic world. The study of atoms and their composition has led physicists to the discovery of atomic energy and the construction of the atomic bomb.

This amazing weapon became widely known in 1945 when the Japanese cities of Hiroshima and Nagasaki were almost annihilated by its terrific destructive force. Immediately afterwards, the explanations for this force were presented to the man on the street. Many reports emphasized the apparent destruction of matter and the release of tremendous energies. The terms "mass" and "energy" began to find their way into everyday conversations. Science had suddenly become an important item for consideration.

The scientists, however, were aware of no such sudden intrusion into their common vocabulary. The terms "mass" and "energy" had been used in physics for four centuries, ever since the time of Galileo and Newton, the so-called Fathers of Modern Science. These men canonized the meanings of the two expressions for scientific use.

The widespread application of the mathematical method of Galileo and Newton introduced "mass" and "energy" into common use among physicists. These men studied reality with a ruler and attempted to express all their findings in algebraic formulas. They discovered that the twin concepts of mass and energy could adequately record their discoveries.

Only at the beginning of the present century did the scientific world reframe its view of mass and energy. In 1905 a young physicist named Albert Einstein proposed in his Special Theory of Relativity that mass and energy were convertible according to the equation in which the energy of a body is equal to its mass multiplied by the speed of light squared: $E = mc^2$. The application of this theory successfully explained previously unsolvable questions. The dichotomy of mass and energy dissolved and became the one concept "mass-energy." The previous develop-

ment of scientific thought since the time of Galileo and Newton was termed classical. Any high school student of physics can recall studying many formulas of classical mechanics.

Special Relativity, as an explanation of natural phenomena, is still a principle from which scientists proceed. Yet, as the Holy Father mentioned, problems have arisen which are related to it. The identification of mass and energy, for example, might seem to establish the identification and convertibility of substance and accident, since the energy, an accident, is now equated to the mass. Einstein proposed the convertibility of mass and energy as part of a mathematical-physical theory of reality. What is the physical reason for proposing this convertibility? This article is an attempt to shed light on the problems through an application of the principles of Aristotelian natural science.

Mass

The first step in any investigation is the definition of the terms. What does the scientist mean when he speaks of mass and energy and their convertibility? His definitions delineate the problem he studies.

Mass was treated by Newton and Galileo in connection with their experiments with motion. When Newton measured the rates of acceleration for various bodies, he discovered that with the same initial impulse different bodies have differing rates of acceleration. He attributed the rate of a body's acceleration to its mass. Mass for Newton was identified with the quantity of matter of a body.[2] The quantity of matter was the internal measure of the matter and this quantity was what he meant by mass. Hence for Newton mass and body were identified in such a way that the mass was the measure of a body's quantity of matter.

Newton measured mass by calculating the accident of a body which he called its innate force or inertia. Inertia, which is also called resistance, is of the second species of quality, an active, corporeal, non-vital quality. Newton defined inertia as the property of a body by which it resists a change in its state of motion or rest. Through his measurements of a body's inertia Newton attempted to measure its mass, yet he considered the two to be proportional and not the same thing.

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[2]Sir Isaac Newton, *The Mathematical Principles of Natural Philosophy* (revised translation by Florian Cajori; Berkley: University of California Press, 1947), 1.

The distinction between mass and inertia became obscured, however, for mass was always measured by inertia. Gradually both the thing measured and its measure were treated under the name "mass." With the present investigations of mass the necessity arose of once again distinguishing between mass, the measure of a body's quantity of matter, and inertia, the measure of the body's quality of resistance to a change in its motion. Since the modern physicists use "mass" to mean the measurement of a body's inertia, we shall hereafter in this article use the term in this sense. The quantity of matter in a body will be referred to as matter or body.

Because mass is not altogether divorced from weight, the term "mass" is also used to refer to a body's gravitational mass. The gravitational mass is what the physicist calculates when he measures a body's tendency to reach its proper place from a particular position, usually on or near the earth's surface. Einstein discovered that the measurement of a body's resistance to a change in its motion was equal to the measurement of the body's tendency to its proper place. He thus discovered the mathematical identity or equivalence of gravitational mass and inertial mass.

It is important to notice that the modern physicist is using "mass" as a word which connotes to him a measurement. By calculating the exact measurement of a body's inertia, the physicist can formulate equations which describe the body. The recent advances in measuring techniques now permit the scientists to calculate, for example, the mass of the smallest atom, the hydrogen atom; its mass is 1.649 quadrillionths of a gram.

To reach a clear understanding of the use of the term "mass" in current scientific works it is necessary to distinguish between a mathematical expression of a measurement and the subject which is being measured. The two are not the same and the attempt to interchange them creates a confusion which springs from the process of abstraction employed in mathematics.

> The basis for the principle of inertia lies in the nature of mathematical abstraction. The mathematician must equate: a single quantity is of no use to him. In order to equate quantities he must assume the basic irrelevance or nullity of other factors: otherwise there can be no certainty in his equations. The factors which the mathematician considers irrelevant are, as we have seen, motion, rest, constancy, and unaltered directivity; it is only the change of these factors which have quantitative value. Thus for the physicist it is not motion and its continuation which need to be explained, but changes and cessation of motion—for only these

> have equational value. The principle of inertia which is necessitated by every equation must exclude the vitality of real existence, spontaneity, motion and finality. In other words, the logical function of inertia in mathematical abstraction relinquishes necessarily the reality and spontaneity of nature.[3]

This text clearly reveals the difference between a physical and a mathematical understanding of the world. The modern scientist is speaking in a mathematical context. He has abstracted from those things which are most important for the student of Natural Philosophy, namely the causes which reveal the nature of physical bodies. The identification of the mathematical and the physical methods of approaching reality leads to a misunderstanding of nature.

When the physicist calculates the measurements of a body, he does not mention the subject which he is measuring. The physics texts relate the results of countless experiments, but fail to treat sufficiently the underlying activity of the body which accounts for the effect, for instance, of inertia. Inertia is attributed to a body because of the Principle of Inertia; a body will remain in a state of rest or of uniform rectilinear motion unless acted upon by an outside force. This "law" of motion is not a physical law but a mathematical extrapolation from the real world. The law is valid insofar as it permits of mathematical precision; indeed it is necessary or at least convenient in order to arrive at mathematical expressions of reality. Yet because the law is an abstraction from intrinsic principles which are the proper principles of a natural body, it is not valid for the natural scientist who is searching for physical reasons.

The physical basis for inertial and gravitational mass is demonstrated in the general part of natural science. All bodies have a natural place. When a body is in place, it tends to resist a violent motion which would remove it. If, on the contrary, it is not in its natural place, there is a natural tendency to seek its proper place.

To further understand the physical meaning and foundation of mass, we must treat of nature, for nature is the principle of both motion and rest in a body.[4] It is characteristic of a nature even in inanimate bodies to have both passive and active manifestations, since bodies have a natural motion and a natural rest. In both these activities nature is the formal

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[3]James A. Weisheipl, O.P., "Natural and Compulsory Movement," *The New Scholasticism,* XXIX (Jan. 1955), 80.

[4]Cf. James A. Weisheipl, O.P., "The Concept of Nature,"*The New Scholasticism,* XVIII (Oct. 1954), 378-406.

and material cause of the motion, the *principium quo;* the *principium quod* is the body which is moved.

The proper activities of the inanimate natural body are a proper motion and a proper rest. The proper motion to a natural place is exactly what gravitation is. Nature as an active principle is the formal cause of this spontaneous movement to the natural place when a body is "misplaced." Inertia is a passive manifestation of the same nature. When a natural body is in place, there is a natural resistance to any outside agent which attempts to move it. Nature, active and passive, exists for the good of the natural body, for it is a natural, intrinsic perfection of such a body to be in a fitting place.

We have now considered mass from both the modern, mathematical viewpoint and the physical viewpoint. We can now conclude that mass is not the same as matter, and that the two words cannot be used interchangeably. In his own definition of mass as the measurement of a body's inertia, the modern physicist does not make mass synonymous with matter. When he speaks, therefore, of the convertibility of mass and energy, he is not speaking of the convertibility of matter and energy. To jump to this conclusion is to arrive at the perplexing situation where substance would be convertible with accident, or energy, an accident, convertible with matter.

Matter is either prime matter, which is potentiality without any actuality, or second matter, a natural body. The mobile body is the proper subject of natural science. Of the many accidents of the mobile, the first is quantity, for it is its relation to quantity which is the source of a body's individuation. As a result of its nature a body has the physical accidents of inertia and gravity, which in the physical order follow upon quantity and place. Their measurement, however, depends upon the reliability of the measuring instruments. In a given measurement it is necessary to determine whether what is being measured is the actual physical matter of the body or an effect which depends upon the matter.

Although the mass is not identical with the matter, they are connected insofar as the mass follows upon the matter. Whether the matter is directly measurable through the mass is sometimes difficult to determine. For instance, it is now common to measure a change of mass with a change in a body's velocity. It should be noted that this increase of mass with increased velocity is recorded only for minute particles which

are moved with almost the speed of light. Ordinary, observable bodies do not have a sufficient increase in velocity to give rise to an increased measurement of their mass. In small particles, though, the results of the measurements are amazing. For instance, Bucherer measured the change in the ratio energy/mass for beta particles (electrons) having velocities 0.7 that of light. The increase of mass in this case is forty per-cent over the "rest mass." This is only one such experiment out of many which reveal the same result. Such experiments disproved the classical theory that the mass of a body was a constant in equations and directly proportional to the matter.

These experiments led Einstein to relate mass and energy by the equation $E = mc^2$. A measureable increase in mass is detected with increasing velocity, yet there is no additional matter or quantity in the body. The body is the same except for its velocity. Here is a difficulty for the physicist who measures this increase in mass. When he finds an increase in mass, he must compute the proportional relations of other quantities in his equations.

There is doubtless a physical explanation for the increase in mass with velocity, but the scientist has abstracted from this. The intrinsic physical reason is the nature of the body in motion. As a body is moved with ever increasing velocity, it is further removed from its natural rest and has an increasingly actual tendency to it. Hence the nature spontaneously resists change in velocity as it always resists violent motions. When this resistance is measured, an increase in mass is discovered. Indeed, at some point the mass is found to approach the infinite and no further acceleration can be given to the body.

Energy

While mass is associated with a body because of the body's resistance to a change in its motion, energy is ascribed to a body for a contrary reason. Energy is an active power or force possessed by bodies and is the source of their dynamic activity. This force is defined in relation to the effect which a body with energy can produce on another body. The physicists use the term "work" to refer to this effect; an energetic body works on other bodies.

It is according to the definition of energy in terms of work that energy is divided. In general, energy is either kinetic or potential. Kinetic

energy is the capacity of a moving body to do work and potential energy the capacity of a body at rest to do work. These can be expressed in measurements of the work being done or the work which can be done.

Potential energy depends on the body's position and kinetic energy on its velocity. A body possesses potential energy when its location gives it the power for doing work. This type of energy is evident in a clock-weight, for example, when it has been raised to some height. The natural tendency of the weight to move downward gives the weight the power to do work, in this case to keep the clock running. While the weight is in motion downward, it gains velocity or kinetic energy.

Potential energy and kinetic energy are so related that theoretically a constant proportion should be maintained between them. Thus in the clock, as potential energy is lost, kinetic energy is gained; conversely, when the clock is wound, someone expends kinetic energy to raise the clock-weight, which then has potential energy in virtue of its raised position.

In any given instance, though, this proportion is not mathematically verified unless other factors are considered. When a body is moved, there is an accompanying phenomenon called friction. As the body moves, it is moving against or along some other body. The contact of the two bodies produces friction, which is noticeable as heat. In a roller-coaster, for instance, a coach has potential energy at the top of the track and gains kinetic energy as it descends. Yet it never ascends the next hill to the same height as that from which the descent began. Some of the energy of the coach has been lost from friction. If the energy lost by friction is considered, then a constant proportion is maintained between potential energy. This proportion is called by physicists the Law of the Conservation of Energy.[5]

Kinetic energy is divided into the many types of energy which man uses daily. Radiant heat, light and electricity are forms of kinetic energy called electro-magnetic energy. Energies are measured in terms of the erg. The erg, the fundamental unit of energy, is twice the kinetic energy of one gram of matter moving with a velocity of one centimeter per second.

Only recently was a method found for analyzing and measuring great concentrations of energy. The energy of cosmic rays, those strange radia-

[5]Cf. Albert Einstein and Leopold Infeld, *The Evolution of Physics,* (New York: Simon and Schuster, 1942), 49-51.

tions which reach our earth from outer space, is the greatest concentration of energy known. The energy of cosmic rays is measured in terms of the electron-volt. The electron-volt is the energy an electron gains when traversing a tension of one volt. The same unit of energy is used to calculate the energy of an individual atom. The energy of the atom is not the velocity of the atom, which is an accidental and quite small quantity of energy, but the energy of the system itself which is the atom. This energy is called atomic or nuclear energy.

The discovery of the great quantity of energy associated with a body has led physicists to restate the method for calculating the total energy of a body and the Law of the Conservation of Energy. In classical mechanics a body's total energy was the sum of its kinetic energy, which depends on the body's velocity, and its potential energy, depending on its position. According to the Theory of Relativity, however, a body's total energy is the sum of its potential energy, its kinetic energy, and the so-called rest energy. Now the rest energy is the energy which a body has because of its mass. At least the existence of this energy is calculated from the measurement of mass. This energy was first mentioned in connection with the increase in a body's mass with its increased velocity. If increased velocity or energy means increased mass, then a body with no kinetic energy would yet have an energy proportional to its rest mass. This energy must now be taken into account if the Law of the Conservation of Energy is to be maintained.

We have now considered two of the terms in the equation $E = mc^2$: mass and energy. The third term, c, is the symbol for the velocity of light, which is 186,000 miles per second. It is this term which makes the solution of the equation appear as such a large number. The speed of light is found in the equation because the relationship between mass and energy in terms of the speed of light squared flows from the mathematics which gave rise to the Special Theory of Relativity.

This theory is founded on the postulates that the speed of light is independent of the motion of the source and that in two coordinate systems moving uniformly relative to each other, all laws of nature are exactly identical. These two postulates required a change in the traditional laws for the transformation of quantities from one system to another. Since the speed of light is now a constant for observers in all systems, certain corrections must be made in the classical transformation laws.

These corrections are called the Lorentz Transformation and in these new laws for transformation c^2 appears as the proper correction factor.

Mass-Energy Conversion

In the equation $E = mc^2$ the relationship between mass and energy is mathematically expressed. The symbol for energy, E, in the equation stands for the rest energy, the potential energy which a body has by reason of its mass. The symbol for mass, m, stands for the mass which a body has when its kinetic energy, and therefore also its momentum, are equal to zero.

This equation is today universally accepted as an adequate statement of the relation between the mass of a body and its potential energy. In order to see the validity of the equation in reality, it is necessary to measure the amount of energy which is equivalent to a given mass. This energy is measureable only in reactions in which the original atom suffers a change in its core or nucleus. Although ordinary chemical changes are substantial changes, as when oxygen and hydrogen combine to form water, nevertheless the change is located in the peripheral structure of the individual atoms.

Transformation, on the other hand, is a type of substantial change in which the nucleus of an atom is transformed by the addition or subtraction of particles. The result is the formation of new chemical elements. In these experiments a measureable loss of mass is accompanied by a corresponding release of energy. This is the source of liberated atomic energy.

The general principles for this and every substantial change are found in a special part of natural science, because a substantial change is a special type of motion whose conditions and properties differ widely from the same considerations in a change of place, quantity or quality. In these three types of change a subject remains specifically the same subject; in a substantial change the subject does not remain specifically the same.

Substantial change is the eduction of a substantial form from specially disposed prime matter. Since this form is the absolutely first actuality of the composite of matter and form, the change must be instantaneous. Yet concomitant with every substantial change are several accidental changes which precede the actual transformation and are the proximate causes of it. The accidental changes which accompany transformation can be

natural and spontaneous, as in the case among naturally radioactive elements, or they can be induced, as is done by the bombardment of atomic nuclei. In both instances the result is the destruction of the substantial unity of the atom. The unity in an atom is the result of its substantial form, which is the principle of its being undivided. When the particles of an atom are so changed that they can no longer be unified by a particular substantial form, the form is reduced to the potency of the matter.

Instantaneously a new form is educed from the potency of the matter which is the prime matter. The actual eduction of the form from prime matter is not successive but simultaneous with the reduction of the previous form to the potency of prime matter. The new form is educed according to the degree of unity remaining in the matter; the unity present is determined according to the dispositions of the matter. These dispositions are accidents of the preceding unit which remain specifically, not numerically, the same in the new composite. Thus in any substantial change certain kinds of accidents carry over from the preceding unit and are the proximate material conditions for the new form. In general these dispositions are ordained to the unity necessary for the particular form which is educed.

In every atom the particles must be connected in a substantial unity by the form. Because of the stability of the natural unit, its form is equivalent to some great force necessary to unify the parts. This force in an atom is called the binding or atomic energy, which, as its name signifies, is a unifying force.

The notion of binding energy arises from a study of the composition of atoms. On the sun, for instance, atoms of helium are constantly being formed. In a helium nucleus there are four particles: two protons and two neutrons. The estimated weight of the composite formed from these particles, computed from their individual weights, is 4.03302. The actual weight of a helium nucleus is 4.00280. The defect in mass of 0.030 atomic mass units is accompanied by the release of kinetic energy which is equal to the mass defect times the speed of light squared. The reason for the deficiency in mass and the release of energy is found in the particles themselves. The sub-atomic particles have a certain density of energy connected with them called their energy field; this field is material and always associated with a body. Now as the atom is formed, the field of the various particles interact in such a way that some of the energy is liberated in the process of forming a stable element. This liberated

energy is equivalent to the binding energy of the atom. As the particles are more closely bound together, the binding energy is greater. The binding energy for any atom can be calculated from the amount of energy which must be put into the atom in order to return its particles to a separated existence.

If an atom is disturbed, a change occurs in its substantial unity. When binding energy is released, the particles tend to disperse and the matter becomes indisposed for the form. This happens spontaneously in the uranium atom. The natural radioactivity of this atom causes the atom to disintegrate and the form of uranium to be lost. This process of decomposition continues until one form is educed which is stable.

For the natural philosopher, then, the important point to consider in a nuclear change is the degree of stability or unity which is present among the particles of an atom once the nucleus has been disrupted, for this unity determines the change. The unity present after the disruption provides the foundation for the new form. The binding energy remaining in the atom is the disposition of the matter for the new form. Different measurements of the dispositions of the (disposed) matter can be mathematically equated with the assistance of a proper correction factor, since the dispositions are specially related to the previous form. The dispositions measured by the physicist are the mass and energy present in an atom before its disruption and the mass and energy present among the effects of the disruption.

An example will perhaps clarify the notion of nuclear change. Since the uranium atom is so large and complex, we shall here consider the relatively simple atom of lithium, a very light metal. If we take a lithium atom, atomic weight seven, and bombard it with a proton, which is an energetic hydrogen nucleus, the result will be two atoms of helium. The entire process can be studied from photographs taken in a Wilson cloud chamber during the transformation. From the paths of the emerging helium nuclei, which register on photographic plates, the physicist can calculate the energy of the particles.

We discover from these measurements that if the lithium atom is bombarded with protons of 300,000 electron-volts energy, the two resulting helium atoms have kinetic energies of 8,700,000 electron-volts each. The difference in energy is of such magnitude that the ejected helium atoms have a total kinetic energy seventeen million times that of the bombard-

ing proton. When the masses of the helium atoms, the hydrogen nucleus, and the lithium atom are computed according to a mass spectrograph, a loss of 0.01852 atomic mass units is discovered. This differs from the result calculated according to the equation $E = mc^2$ by less than one percent.[6]

The question now becomes: whence this great increase in energy and the decrease in mass? Before the bombardment the physicist had calculated the inertia of the atom. He had also calculated the energy and mass of the bombarding proton. After the transformation he measured the inertia of the emergent particles and their velocity or kinetic energy. In the former case the measurement of the mass of the lithium atom was a measurement of an accident of a substantial whole. This substantial whole required a certain binding energy to hold its parts together and to preserve its atomic stability. The bombarding proton, however, destroyed this unity when it struck the atomic nucleus. The parts of the atom were no longer held together by the form of lithium. The various particles flew apart with terrific velocities. The source of this velocity could not have been the kinetic energy of the bombarding proton which was calculated as only 300,000 electron-volts. The source of the energy must be internal to the atom. This is its atomic or binding energy. In this way the energy of the helium atoms is accounted for.

The fact that the two helium atoms are found to have less mass than the lithium atom and the hydrogen nucleus with which it was bombarded is due to the newly educed form of helium. This form was educed when the particles had become indisposed for the form of lithium. The binding energy remaining provided unity sufficient for the eduction of the form of helium.

Although similar effects are measured in the bombardment of such large atoms as uranium, atomic number ninety-two, there is one difference. Whereas in ordinary reactions, such as the bombardment of lithium atoms, the energy released is of the order of one to twenty million electron-volts, in the disintegration of uranium the energy released is nearly one-hundred-eighty million electron-volts. This explains the use of uranium in the atomic research laboratories. The large amount of energy released from a uranium atom is due to the complexity of its atomic structure and to the natural instability of the element uranium.

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[6]For a detailed account of this and many other nuclear reactions, cf. J. D. Stranathan, *The "Particles" of Modern Physics* (Philadelphia: The Blakiston Company, 1943), 433-447.

The equation $E = mc^2$ from the Special Theory of Relativity expresses the mathematical relationship between the amount of mass lost and the amount of energy gained. This is the basis for the conclusion that energy itself has inertia or that energy is massive. In other words, physicists no longer use the terms separately for they have been fused into one by the equivalence equation of Einstein.

This is not to say that matter is converted to energy. The physical foundations for the equation are clearly treated by the Holy Father.

> For an entity to be material it is not absolutely necessary for it to have the properties of inertia and gravitation. It can exist as matter without these characteristics . . . Therefore one can legitimately conclude today that there exist phenomena in nature in the course of which a portion of matter loses its characteristic of mass and radically modifies itself in its physical properties while remaining wholly matter. It happens that the new state which the latter assumes escapes the experimental methods which have been used to determine the value of mass. Correlative with this change a certain amount of energy frees itself and appears, giving origin to the facts which one can observe and measure in the ponderable matter. In this way one can say that the data of science undergo no change and that philosophic premises preserve their vigor.[7]

Conclusion

The nuclear experiments of the scientists have been widely misunderstood only because of a failure to understand the terminology correctly. As in every science, so also in physics, terms which have one meaning in common parlance acquire specialized uses among scholars. Technical terms must be understood in their technical context. In modern science the context is mathematical. The terms which commonly refer to qualities are now used by scientists to refer to measurements. In attempting to interpret the advances of modern science, the reader must penetrate the mathematical abstractions which cloak the physical foundations for phenomena.

The ordinary man's confusion about mass and energy has arisen chiefly from the ambiguity of the word "mass." Once a distinction is made between mass and matter, or mass and inertia, the question becomes intelligible. The physicist is by no means attempting to physically identify substance and accident through Einstein's equation. The equation merely states that there exists a proportion between a body's rest mass and its rest energy in terms of c^2. When the body is changed so that its rest mass

[7]Pope Pius XII, *op. cit.*, 224.

is no longer measurable, energy will be liberated. The inertia of the fissionable atom has been transformed into the energetic and inertial properties of the products.[8]

Nuclear transformation must be understood physically in terms of motion and the mobile. The mobile, a substantial whole, is the subject of motion. No one should expect that the particles which are united in this atomic whole will retain their individual identities in the composite, but rather that the particles will be substantially changed in the atom. The substantial form of the atom is now the form of the whole and of all the particles. Thus what is measured as mass at one time is measured as energy at another.

This does not mean that mass and energy are physically identified. The student of nature seeks specific identity or diversity, while the physicist seeks mathematical equality. When the physicist finds that the measurements for mass and energy are convertible, as physicist he equates them. The natural philosopher finds a basis in the physical world for the mathematical equality but not for the physical identification of two accidents of bodies. Rather, he understands mass and energy as two sides of one coin, united by the specific form of the mobile subject, and manifested by the proper activity of its specific nature.

Pius Stenger, O.P.

[8]Cf. Vincent Edward Smith, *Philosophical Physics* (New York: Harper Brothers, 1950), 225-30.

THE NINE WAYS OF PRAYER OF SAINT DOMINIC

IT IS COMMONLY ADMITTED that Saint Dominic is not an extremely popular saint, not one who draws the devotion of great numbers of the faithful. Even his children, members of the religious family he founded, have been accused of failing to venerate him as they should. This is probably more true today than during past generations when popular signs of devotion to Dominic were almost universal and his name often used in Christian families.

At the present time Saint Dominic seems to be recognized rather as a genius among organizers, as the intellectual wizard who founded an Order with an exalted intellectual mission. But as a saint, a soul in constant and intimate converse with God and in perfect conformity to His will —this picture of Dominic is too often lacking. A remedy is desirable so that his noble and devout character may be better understood by all.

Among the most ancient writings concerning him may be found a comparatively short work simply entitled in the early codices: *De novem modis orandi sancti Dominici—The Nine Ways of Prayer of Saint Dominic.* This opusculum might almost be said to have been rediscovered by Innocenzo Taurisano, O.P. He found a version of the work in an ancient Spanish Codex, *Codex Rossianus 3,* in the Vatican Library, and from this published the critical Latin text in the *Analecta* of the Order.[1] This was on the occasion of the seventh centenary of Saint Dominic's death; since that time it has become somewhat better known but, unfortunately, not among many English-speaking Dominicans.

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[1]Innocentius Taurisano, O.P., "Quomodo Sanctus Patriarcha Dominicus orabat," *Analecta S. Ordinis FF. Praedicatorum,* XV (July, 1922), 93-106.

The Nine Ways of Prayer has usually been published as an appendix to the thirteenth-century *Life of Saint Dominic* by a German friar, Theodoric of Apoldia. In this way the Bollandists included it in the *Acta Sanctorum*.[2] However, about half of the manuscripts of this life do not contain the appended *Nine Ways* and, moreover, in many important details the two do not agree.[3] Besides, the *Nine Ways* has a manuscript tradition of its own, independent of the *Life of Saint Dominic,* and this exclusively in Southern Europe. This is seen from the fact that the ancient codices which contain the independent version are those of Carcassonne, Madrid, and the *Codex Rossianus,* as has been indicated, is of Spanish origin.[4] origin.[4]

Theodoric mentions in the prologue to his work his indebtedness to a certain prior provincial of Germany, Brother Gerard,[5] who brought from Bologna some writings concerning Saint Dominic. This friar, returning from the General Chapter of Lucca of 1288, brought to the biographer written testimony obtained directly from Sister Cecilia as well as other documents, "revelations of saints which must not be spurned and very faithful narrations of early witnesses which are most worthy of belief."[6] Theodoric, however, fails to attribute the recording of the *Nine Ways* to Gerard (i.e., Konrad) or to any other person as he probably would have done had he known the author.

Despite this, both the Bollandists[7] and Dr. Altaner[8] credit the German provincial with the authorship simply because he contributed certain materials to the biographer, and because *The Nine Ways of Prayer* indicates some personal contact with Sister Cecilia of Bologna and with other eyewitnesses. Such a supposition seems to seize upon a more ob-

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[2]*Acta Sanctorum* (August I), 625-28.

[3]M. H. Vicaire, O.P., *Saint Dominique de Caleruega d'apres les documents du XIII*e *siecle* (Paris: Les Editions du Cerf, 1955), 200.

[4]Taurisano, *op. cit.*, 94.

[5]Errors on the part of copyists seem to have caused the substitution of the name "Gerard" for that of "Konrad." The German provincial at this time was, according to historical evidence, Konrad von Trebensee whose importance and contributions to Theodoric's work may be seen from this scholarly work: Dr. Berthold Altaner, *Der Heilige Dominikus–Untersuchungen und Texte* (Breslau: Aderholz' Buchhandlung, 1922), 190-195.

[6]". . . revelationes Sanctorum, quae spernendae non sunt, relationesque veterum fidelissimae, et omni credulitate dignissimae" (*Acta SS., op. cit.*, 559).

[7]*Ibid.*, 372.

[8]Altaner, *op. cit.*, 188-9.

vious possibility and fails to consider all the difficulties involved. This may be due, at least in part, to a lack of accurate information concerning the manuscript history and the critical text.

A more plausible theory is set forth by Father Taurisano, O.P., who says of the *Codex Rossianus* and of *The Nine Ways of Prayer:*

> The codex of Catalan origin reproduced a more ancient Bolognese codex. Most probably in Bologna some anonymous friar, gathering together from the mouth of Sister Cecilia the still vivid memories of that holy religious as well as those of others who had lived in contact with the Patriarch, wrote this small work which was illustrated by some painter, with which the Order then abounded, from among the brethren, and then diffused among the friars. A German friar, Brother Konrad, who came to Lucca in 1288, saw it and became enamored of it. Obtaining a copy, he gave it to Theodoric of Apoldia who at that time was writing a life of Saint Dominic. This most rare treasure was then included by the biographer in his life.[9]

It appears, then, more likely that *The Nine Ways of Prayer* was among those writings brought to the German biographer by his provincial. In this way we can best account for the failure of Theodoric to attribute its authorship to any specific person, and can also explain why the copies of this opusculum which are entirely separated from his *Life of Saint Dominic* are found only in codices of Southern European origin.

Of the three codices already mentioned, Carcassonne, Madrid, and the *Codex Rossianus,* the first and last are found in Latin. The Madrid Codex, dating from the fourteenth century and in the possession of the nuns of the Convento Santo Domingo el Real, is in an early form of Catalan.[10] All these versions date from either the fourteenth or fifteenth

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[9]"Il codice di origine catalano riproduceva un codice piu antico bolognese. In Bologna con molta probabilita un anonimo frate, raccogliendo dalla bocca di suor Cecilia i ricordi ancora vivi della santa religiosa; come pure quelli di altri religiosi vissuti a contatto col Patriarca, ne traccio un opuscolo illustrato da qualche confratello pittore, di cui allora abbondava l'Ordine, e lo diffuse tra i frati. Un tedesco venuto a lucca nel 1288, fra Corrado, lo vide, se ne innamoro, ne volle una copia donandola a fra Teodorico d'Apolda che in qual momento scriveva una vita di S. Domenico. Quella rarissima perla fu inclusa dal biografo nella sua leggenda" (I. Taurisano, O.P.—A. Floris, O.P., *Come pregava S. Domenico* [Roma: Edizioni Cattedra Cateriniana, 1947], 62).

[10]A reproduction of a page from this ancient manuscript, now preserved in Madrid, may be found in the following article: Luis G. Alonso-Getino, "?Fue Santo Domingo Fundador del Rosario?" *La Ciencia Tomista,* XXIV (November-December, 1921), 379.

centuries while the original work, of course, is of the thirteenth century. Père Vicaire, O.P., places the date between 1260 and 1288.[11]

A curious fact is that these versions are accompanied by miniature drawings to illustrate the various postures of Saint Dominic while at prayer. Those of the Madrid Codex are very primitive in style while the pictures of the *Codex Rossianus* are by a skilled miniaturist and done in brilliant colors which remain vivid even today. The sketches which accompany this translation are adaptations, by Brother Jerome Newell, O.P., of the ancient drawings.

The following translation is from the critical text established by Father Taurisano from the *Codex Rossianus 3*. Comparisons, however, were made with the Latin version given by the *Acta Sanctorum,* an edition of the ancient Catalan version published in *La Ciencia Tomista,*[12] and a more recent French translation by the fathers of Saint-Maximin.[13] A debt of gratitude is owed to the editor of the *Analecta, O.P.* for his kind permission to translate the work, to Father A. Bandera Gonzalez, O.P. of *La Ciencia Tomista,* and especially to Father William A. Hinnebusch, O.P., for his generous assistance in this undertaking.

This is, then, a venerable document testifying to the eminent sanctity of Saint Dominic, and showing something of his intimate life and intense love of God. May the translation become familiar to all of us and serve in some measure to foster a greater devotion to our holy father, Saint Dominic.

Introduction

HOLY TEACHERS like Augustine, Ambrose, Gregory, Hilary, Isidore, John Chrysostom, John Damascene, Bernard, and other saintly Greek and Latin doctors have discoursed on prayer at great length. They have encouraged and described it, pointed out its necessity and value, explained the method, the dispositions which are required, and the impediments which stand in its way. In learned books, the glorious and venerable

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[11]Vicaire, *loc cit.*

[12]Luis G. Alonso-Getino, O.P., "Los nueve modos de orar de senor Santo Domingo," *La Ciencia Tomista,* XXIV (July-August, 1921), 5-19.

[13]Vicaire, *op. cit.*, 261-71.

doctor, Brother Thomas Aquinas, and Albert of the Order of Preachers, as well as William in his treatise on the virtues, have considered admirably and in a holy, devout, and beautiful manner that form of prayer in which the soul makes use of the members of the body to raise itself more devoutly to God. In this way the soul, in moving the body, is moved by it. At times it becomes rapt in ecstasy as was Saint Paul, or is caught up in a rapture of the spirit like the prophet David. Saint Dominic often prayed in this way, and it is fitting that we say something of his method.

Certainly many saints of both the Old and the New Testament are known to have prayed like this at times. Such a method serves to enkindle devotion by the alternate action of soul upon body and body upon soul. Prayer of this kind would cause Saint Dominic to be bathed in tears, and would arouse the fervor of his holy will to such intensity that his bodily members could not be restrained from manifesting his devotion by certain signs. As a result, the spirit of the supplicant was sometimes raised up during its entreaties, petitions, and thanksgivings.

The following, then, are the special modes of prayer, besides those very devout and customary forms which Saint Dominic used during the celebration of Mass and the praying of the psalmody. In choir or along the road, he was often seen lifted suddenly out of himself and raised up with God and the angels.

The first way of prayer

SAINT DOMINIC'S first way of prayer was to humble himself before the altar as if Christ, signified by the altar, were truly and personally present and not in symbol alone. He would say with Judith: "O Lord God, the prayer of the humble and the meek hath always pleased thee."[14] *It was through humility that the Chanaanite woman and the prodigal son obtained what they desired; as for me,* "I am not worthy that thou

[14]Judith 9:16.

shouldst come under my roof,"[15] *for* "I have been humbled before you exceedingly, O Lord."[16]

In this way our holy father, standing erect, bowed his head and humbly considering Christ, his Head, compared his lowliness with the excellence of Christ. He then gave himself completely in showing his veneration. The brethren were taught to do this whenever they passed before the humiliation of the Crucified One in order that Christ, so greatly humbled for us, might see us humbled before his majesty. And he commanded the friars to humble themselves in this way before the entire Trinity whenever they chanted solemnly: "Glory be to the Father, and to the Son, and to the Holy Spirit." In this manner of profoundly inclining his head, as shown in the drawing, Saint Dominic began his prayer.

The second way of prayer

SAINT DOMINIC used to pray by throwing himself outstretched upon the ground, lying on his face. He would feel great remorse in his heart and call to mind those words of the gospel, saying sometimes in a voice loud enough to be heard: "O God, be merciful to me, a sinner."[17] With devotion and reverence he repeated that verse of David: "I am he that has sinned, I have done wickedly."[18] Then he would weep and groan vehemently and say: "I am not worthy to see the heights of heaven because of the greatness of my iniquity, for I have aroused thy anger and done what is evil in thy sight."[19] From the psalm

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[15]Matt. 8:8.

[16]Ps. 118:107.

[17]Luke 18:13.

[18]II Kings 24:17.

[19]"Non sum dignus videre altitudinem celi pre multitudine iniquitatis mee, quoniam irritavi iram tuam, et malum coram te feci." These words are from the ancient *historia* entitled *Deus omnium* which in the Dominican rite is used for the responsories of Matins from the Second Sunday after the Octave of Trinity until August 1st. (*Breviarium* S. *Ordinis Praedicatorum,* II [ed. Suarez, Romae: Marietti, 1947], 348). The phrases are derived, substantially, from the apocryphal *Prayer of Manasses.*

"Deus auribus nostris audivimus" he said fervently and devoutly: "For our soul is cast down to the dust, our belly is flat on the earth!"[20] To this he would add: "My soul is prostrate in the dust; quicken thou me according to thy word."[21]

Wishing to teach the brethren to pray reverently, he would sometimes say to them: *When those devout Magi entered the dwelling they found the child with Mary, his mother, and falling down they worshipped him. There is no doubt that we too have found the God-Man with Mary, his handmaid.* "Come, let us adore and fall down in prostration before God, and let us weep before the Lord that made us."[22] He would also exhort the young men, and say to them: *If you cannot weep for your own sins because you have none, remember that there are many sinners who can be disposed for mercy and charity. It was for these that the prophets and apostles lamented; and when Jesus saw them, he wept bitterly. The holy David also wept as he said:* "I beheld the transgressors and began to grieve."[23]

The third way of prayer

AT THE END of the prayer which has just been described, Saint Dominic would rise from the ground and give himself the discipline with an iron chain, saying, "Thy discipline has corrected me unto the end."[24] This is why the Order decreed, in memory of his example, that all the brethren should receive the discipline with wooden switches upon their shoulders as they were bowing down in worship

[20]Ps. 43:25.
[21]Ps. 118:25.
[22]Ps. 94:6.
[23]Ps. 118:158.
[24]Ps. 17:36.

and reciting the psalm "Miserere" or "De Profundis" after Compline on ferial days. This is performed for their own faults or for those of others whose alms they receive and rely upon. No matter how sinless he may be, no one is to desist from this holy example which is shown in the drawing.

The fourth way of prayer

AFTER this Saint Dominic would remain before the altar or in the chapter room with his gaze fixed on the Crucified One, looking upon Him with perfect attention. He genuflected frequently, again and again. He would continue sometimes from after Compline until midnight, now rising, now kneeling again, like the apostle Saint James, or the leper of the gospel who said on bended knee: "Lord, if thou wilt, thou canst make me clean."[25] He was like Saint Stephen who knelt and called out with a loud cry: "Lord, do not lay this sin against them."[26] Thus there was formed in our holy father, Saint Dominic, a great confidence in God's mercy towards himself, all sinners, and for the perseverance of the younger brethren whom he sent forth to preach to souls. Sometimes he could not even restrain his voice, and the friars would hear him murmuring: "Unto thee will I cry, O Lord: O my God, be not thou silent to me: lest if thou be silent to me, I become like them that go down into the pit,"[27] and comparable phrases from the Sacred Scripture.

At other times, however, he spoke within himself and his voice could not be heard. He would remain in genuflection for a long while, rapt in spirit; on occasion, while in this position, it appeared from his face that his mind had penetrated heaven and soon he reflected an intense joy as he wiped away the flowing tears. He was in a state of longing and anticipation like a thirsty man who has reached a spring, and like a

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[25]Matt. 8:2.
[26]Acts 7:60.
[27]Ps. 27:1.

traveler who is at last approaching his homeland. Then he would become more absorbed and ardent as he moved in an agile manner but with great grace, now rising, now genuflecting. He was so accustomed to bend his knees to God in this way that when he travelled—in the inns after a weary journey, or along the wayside while his companions rested or slept—he would return to these genuflections, his own intimate and personal form of worship. This way of prayer he taught his brethren more by example than by words.

The fifth way of prayer

WHEN HE was in the convent, our holy father Dominic would sometimes remain before the altar, standing erect without supporting himself or leaning upon anything. Often his hands would be extended before his breast in the manner of an open book; he would stand with great reverence and devotion as if reading in the very presence of God. Deep in prayer, he appeared to be meditating upon the words of God, and he seemed to repeat them to himself in a sweet voice. He regularly prayed in this way for it was Our Lord's manner as Saint Luke tells us: ". . . according to his custom he entered the synagogue on the Sabbath and began to read."[28] The psalmist also tells us that "Phinees stood up and prayed, and the slaughter ceased."[29]

He would sometimes join his hands, clasping them firmly together before eyes filled with tears and restrain himself. At other times he would raise his hands to his shoulders as the priest does at Mass. He appeared then to be listening carefully as if to hear something spoken from the altar. If one had seen his great devotion as he stood erect and prayed, he would certainly have thought that he was observing a prophet, first speaking with an angel or with God himself, then listening, then silently thinking of those things which had been revealed to him.

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[28]Luke 4:16.

[29]Ps. 105:30. The *Codex Rossianus* has "prayed" (*oravit*) in place of the Vulgate's "pacified" (*placavit*).

On a journey he would secretly steal away at the time for prayer and, standing, would immediately raise his mind to heaven. One would then have heard him speaking sweetly and with supreme delight some loving words from his heart and from the riches of Holy Scripture which he seemed to draw from the fountains of the Savior. The friars were very much moved by the sight of their father and master praying in this manner. Thus, having become more fervent, they were instructed in the way of reverent and constant prayer: "Behold as the eyes of servants are on the hands of their masters, as the eyes of the handmaid are on the hands of her mistress . . ."[30]

The sixth way of prayer

OUR HOLY FATHER, Saint Dominic, was also seen to pray standing very erect with his hands and arms oustretched forcefully in the form of a cross. He prayed in this way when God, through his supplications, raised to life the boy Napoleon in the sacristy of the Church of Saint Sixtus in Rome, and when he was raised from the ground at the celebration of Mass, as the good and holy Sister Cecilia, who was present with many other people and saw him, narrates. He was like Elias who stretched himself out and lay upon the widow's son when he raised him to life.

In a similar manner he prayed near Toulouse when he delivered the group of English pilgrims from danger of drowning in the river. Our Lord prayed thus while hanging on the cross, that is, with his hands and arms extended and "with a loud cry and tears . . . he was heard because of his reverent submission."[31]

Nor did the holy man Dominic resort to this manner of praying unless he was inspired by God to know that something great and marvelous was to come about through the power of his prayer. Although he did not

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[30]Ps. 122:2.

[31]Heb. 5:7.

forbid the brethren to pray in this way, neither did he encourage them to do so. We do not know what he said when he stood with his hands and arms extended in the form of a cross and raised the boy to life. Perhaps it was those words of Elias: "O Lord, my God, let the soul of this child, I beseech thee, return into his body."[32] He certainly followed the prophet's exterior manner in his prayers on that occasion. The friars and sisters, however, as well as the nobles and cardinals, and all others present were so struck by this most unusual and astonishing way of prayer that they failed to remember the words he spoke. Afterwards, they did not feel free to ask Dominic about these matters because this holy and remarkable man inspired in them a great sense of awe and reverence by reason of the miracle.

In a grave and mature manner, he would slowly pronounce the words in the Psalter which mention this way of prayer. He used to say attentively: "O Lord, the God of my salvation: I have cried in the day and in the night before thee," as far as that verse "All the day I have cried to thee, O Lord: I stretched out my hands to thee."[33] Then he would add: "Hear, O Lord, my prayer: give ear to my supplication in thy truth . . ." He would continue the prayer to these words: "I stretched forth my hands to thee . . . Hear me speedily, O Lord."[34]

This example of our father's prayer would help devout souls to appreciate more easily his great zeal and wisdom in praying thus. This is true whether in doing so he wished to move God in some wonderful manner through his prayer or whether he felt through some interior inspiration that God was to move him to seek some singular grace for himself or his neighbor. He then shone with the spiritual insight of David, the ardor of Elias, the charity of Christ, and with a profound devotion, as the drawing serves to indicate.

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[32]III Kings 17:21.

[33]Ps. 87:2-10.

[34]Ps. 142:1-7.

The seventh way of prayer

WHILE PRAYING he was often seen to reach towards heaven like an arrow which has been shot from a taut bow straight upwards into the sky. He would stand with hands outstretched above his head and joined together, or at times slightly separated as if about to receive something from heaven. One would believe that he was receiving an increase of grace and in this rapture of spirit was asking God for the gifts of the Holy Spirit for the Order he had founded.

He seemed to seek for himself and his brethren something of that transcendent joy which is found in living the beatitudes, praying that each would consider himself truly blessed in extreme poverty, in bitter mourning, in cruel persecutions, in a great hunger and thirst for justice, in anxious mercy towards all. His entreaty was that his children would find their delight in observing the commandments and in the perfect practice of the evangelical counsels. Enraptured, the holy father then appeared to have entered into the Holy of Holies and the Third Heaven. After prayer of this kind he truly seemed to be a prophet, whether in correcting the faulty, in directing others, or in his preaching.

Our holy father did not remain at prayer of this type very long but gradually regained full possession of his faculties. He looked during that time like a person coming from a great distance or like a stranger in this world, as could easily be discerned from his countenance and manner. The brethren would then hear him praying aloud and saying as the prophet: "Hear, O Lord, the voice of my supplication when I pray to thee, when I lift up my hands to thy holy temple."[35]

Through his words and holy example he constantly taught the frairs to pray in this way, often repeating those phrases from the psalms: "Behold, now bless ye the Lord, all ye servants of the Lord . . . in the nights lift up your hands to the holy places, and bless ye the Lord,"[36] or "I have

[35]Ps. 27:2.

[36]Ps. 133:1-3.

cried to thee, O Lord, hear me; hearken to my voice when I cry to thee. Let my prayer be directed as incense in thy sight; the lifting up of my hands as the evening sacrifice."[37] The drawing shows us this mode of prayer so that we may better understand it.

The eighth way of prayer

OUR FATHER, Saint Dominic, had yet another manner of praying at once beautiful, devout, and pleasing, which he practiced after the canonical hours and the thanksgiving following meals. He was then zealous and filled with the spirit of devotion which he drew from the divine words which had been sung in the choir or refectory. Our father quickly withdrew to some solitary place, to his cell or elsewhere, and recollected himself in the presence of God. He would sit quietly, and after the sign of the cross, begin to read from a book opened before him. His spirit would then be sweetly aroused as if he heard Our Lord speaking, as we are told in the psalms: "I will hear what the Lord God will speak to me . . ."[38] As if disputing with a companion he would first appear somewhat impatient in his thought and words. At the next moment he would become a quiet listener, then again seem to discuss and contend. He seemed almost to laugh and weep at the same time, and then, attentively and submissively, would murmur to himself and strike his breast.

Should some curious person have desired to watch secretly our holy father Dominic, he would have appeared to him like Moses who went into the desert, to Horeb, the sacred mountain of God, and there beheld the burning bush and heard the Lord speaking to him as he was bowed down in the divine presence. This holy custom of our father seems, as it were, to resemble the prophetic mountain of the Lord inasmuch as he quickly passed upwards from reading to prayer, from prayer to meditation, and from meditation to contemplation.

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[37]Ps. 140:1-2.

[38]Ps. 84:9.

When he read alone in this solitary fashion, Dominic used to venerate the book, bow to it, and kiss it. This was especially true if he was reading the Gospels and when he had been reading the very words which had come from the mouth of Christ. At other times he would hide his face and cover it with his cappa, or bury his face in his hands and veil it slightly with the capuce. Then he would weep, all fervent and filled with holy desires. Following this, as if to render thanks to some person of great excellence for benefits received, he would reverently rise and incline his head for a short time. Wholly refreshed and in great interior peace, he then returned to his book.

The ninth way of prayer

OUR FATHER, Saint Dominic, observed this mode of prayer while travelling from one country to another, especially when he passed through some deserted region. He then delighted in giving himself completely to meditation, disposing for contemplation, and he would say to his companion on the journey: *It is written in Osee:* "I will lead her (my spouse) into the wilderness and I will speak to her heart."[39] Parting from his companion, he would go on ahead or, more frequently, follow at some distance. Thus withdrawn, he would walk and pray; in his meditation he was inflamed and the fire of charity was enkindled. While he prayed it appeared as if he were brushing dust or bothersome flies from his face when he repeatedly fortified himself with the Sign of the Cross.

The brethren thought that it was while praying in this way that the saint obtained his extensive penetration of Sacred Scripture and profound understanding of the divine words, the power to preach so fervently and courageously, and that intimate acquaintance with the Holy Spirit by which he came to know the hidden things of God.

Andrew M. Kolzow, O.P.

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[39]Osee 2:14.

THE VISION OF A GREAT SAINT

His Eminence, Samuel Cardinal Stritch, Archbishop of Chicago, has always been a great friend and benefactor of the Dominicans in the Province of St. Albert the Great. On the occasion of the dedication of the new St. Rose of Lima Priory, His Eminence delivered the sermon. We take pleasure in presenting the text of his address.

When the Very Reverend Father Provincial of this province of the Order of Preachers, with the concurrence of the Archbishop of Dubuque, kindly invited me to preach the sermon on this important occasion, I confess that I was a bit hesitant about accepting and did accept only because many obligations of charity bind me to these sons of St. Dominic, who in many ways have exerted themselves to help me in the discharge of the duties of my Sacred Office.

I am here today, therefore, without any thought that my words will be equal to the occasion, and with the prayer on my lips that the Holy Spirit will enlighten and strengthen me to stimulate you to think on a subject which seems to me to be at the core of a happy solution of pressing pastoral problems.

This is not an ordinary school of higher learning. Even among seminaries it has a special distinction and aim. Here, through the years, learned professors will instruct and train eager students in the Sacred Sciences, in the quiet and holy routine of the cloister.

Here a vision of a great saint and genius, St. Dominic, who, in the arduous work of an apostolic preacher, came to see the pastoral necessity of this house, will be seen and seen again.

I like to think of the days when St. Dominic, before founding his Order, labored as an apostolic preacher in the south of France where for years

pastors of souls so neglected their duty of instructing their flocks that a virulent heresy with its Manichean doctrines had led astray many of the flock of Christ.

I like to keep in mind that the Order of Preachers was born of a great pastoral need. While I know the apostolate of St. Dominic for capturing the intellect of his Europe for Christ, I always look upon this apostolate as a means to achieve a greater pastoral victory.

Over and over again I have thought how sorry a thing it would be for a Dominican to stop with the "*contemplare*" of his motto and leave out the "*contemplata tradere.*" There is a meaning which we must not forget in the very title, "Order of Preachers."

If the great Poor Man of Assisi sent his brothers out into the village squares and along the countryside to enkindle in the souls of men the love of God, St. Dominic also had his eye on the squares and meeting places, and in another way sought to bring men within the embrace of the Sacred Heart of Jesus.

There is a very definite bearing of this House of Studies on the pastoral care of the faithful and the bringing of more and more souls into the household of the faith. May I attempt to show you one great mission of this House of Studies in helping to solve a pastoral problem which disturbs all of us.

In the United States today, Catholic schools are a major concern of pastors of souls. Over the years we have built and conducted our schools, and all of us know what we owe to them. Today we no longer speak to our people about the obligation of sending their children to Catholic schools. Our people come to us and demand Catholic schools as their right.

Our enrollments are constantly increasing, and we are hard put to provide enough schools. On the elementary school level we have done and are doing a marvelous work which is indeed a miracle of divine grace.

It is heartbreaking for a pastor of souls today when he cannot find enough Catholic high schools for his youths. Despite the enormous difficulties which face them, our schools of higher learning are making progress and are advancing to that point of excellence which is their goal.

At first sight it would seem that we are satisfied with our achievements in Catholic education. Are we? From the point of up-to-date peda-

gogy, we need make no apology for our schools. Teacher training programs have given us excellent, well-trained teachers for them. In their facilities they are equal to the best in the land. Even a teacher shortage, which years ago would have seemed an insurmountable difficulty, has been faced without injury to our standards or the curtailing of our enrollments.

Still, the fact is that there is a holy discontent in us. In all our schools there is diligent teaching of religion and a training in Catholic life which is apparent in the life of the Church in our country. But we know that somehow we have failed in giving in our schools the whole great vision of Revealed Truth as taught by Holy Church. Our people can answer the questions of the Catechism; many have a profounder knowledge of their religion.

Why is it that there is not a greater holy enthusiasm for Holy Church in them? They will enter wholeheartedly in any program of Catholic Action given them. They participate in our national genius for organization. They will sacrifice themselves for the Church. But they have not that full fire of charity which makes the ardent lover so enthused for his loved one that spontaneously he showers his gifts.

Take a look at this fact in our Catholic life. How few are our converts! In the Archdiocese of Chicago we have very nearly two million Catholics. Our infant baptisms are almost forty thousand a year more than our deaths. The statistics for last year show that we had 6,812 converts.

What influence are we exerting to remove occasions of sin from the path of youths? Corner newsstands will give you the answer. We are working, yes, but how meager the results. Despite our efforts we see a growing trend to the sinful in public amusements. Sometimes it seems that we have almost conceded to the surrender of those conventions which the Church through centuries has built up around woman.

In the field of literature and profound scholarship our influence is not great. Is there something wrong about our teaching of religion? Have we wasted a lot of time talking about the philosophy of education when we should have been concentrating on the theology of education? So sincerely are we convinced that we have not done our best in our schools that many of our scholars are working at the problem.

At the very core of all Catholic education is the seminary, the house of theological studies. Here from scholars and students we rightly expect help and guidance. Is it true that sometimes in the training in the Sacred Sciences the teaching method is subject to just criticism? Did the introduction of the thesis method tend to break up the Sacred Sciences in fractions without showing how to put them together in a whole? Are there cases where the knowledge of theology is more a summary of theses than a whole vision of Revealed Truth? There have come new names: Soteriology, Mariology, etc. Is there not something for us to learn from the great Masters of the old universities who based their teaching on theology on a great synthesis?

In my experience I have come across many aberrations in piety and asserted apologetics which have originated in the lack of a vision of Divine Revelation as a whole. I am convinced that some of those who are yielding to tragic compromises are falling into errors because they have never contemplated the wholeness of Divine Revelation confided to the Church.

Now, in this House of Studies there is and will be a tradition and a practice. The Angelic Doctor will teach here. He gave us in the *Summa Theologica* a great satisfying synthesis of theology in which everything is in its right place. As the student goes over this masterpiece, it is like watching an artist paint a great picture. There is the background. There are many figures. But right in the center is our Blessed Savior, God's manifestation of Himself to us. Our Savior sits at the right hand of the Father, the Holy Ghost goes out from them. There stretches out below the Church in which, through his Vicar and ambassadors, Christ tends his flock and beckons all men to come and find salvation.

New problems come but the answer to all of them is in the synthesis of the *Summa*. The Holy Spirit moves in the Church to bring out in clearer light the truths of Revelation, and an erasure here and there may be necessary in detail; but the great synthesis of Faith remains.

Here I think we find a need in our instructions and training—the giving of the whole integrated vision of Revealed Truth as the Church presents it. Our schools mean nothing unless they are the exercise of the teaching office of the Church. The very foundation on which they rest is the divine mandate given to the Church. Theology, therefore, must permeate them from the kindergarten to the university. They all look to our seminaries and houses of theological studies. These institutions are a very part of our pastoral office.

It seems to me that here today we have St. Dominic, looking out over our world and urging us to learn better what he, in holy experience, learned so well. It is not enough to teach Catholic doctrine, we must teach it well. We must learn how, with the help of divine grace, to enkindle a holy, enlightened, spiritual enthusiasm in our people.

Full well we know that there is the will as well as the intellect. But the intellect, illumined by faith, ministers to the will, and, when there is prayer and the use of the means of grace, joined with a right instruction, the Apostolate of the Church, as far as it depends on us, is like a great fire of divine love, sweeping out into the world and purifying and sanctifying everything in the Sacred Heart of Jesus. This is why I have dwelt on the great pastoral meaning of this solemn occasion.

I want to congratulate Father Provincial and the fathers of what we like to call the Chicago Province on their making this great provision for Holy Church.

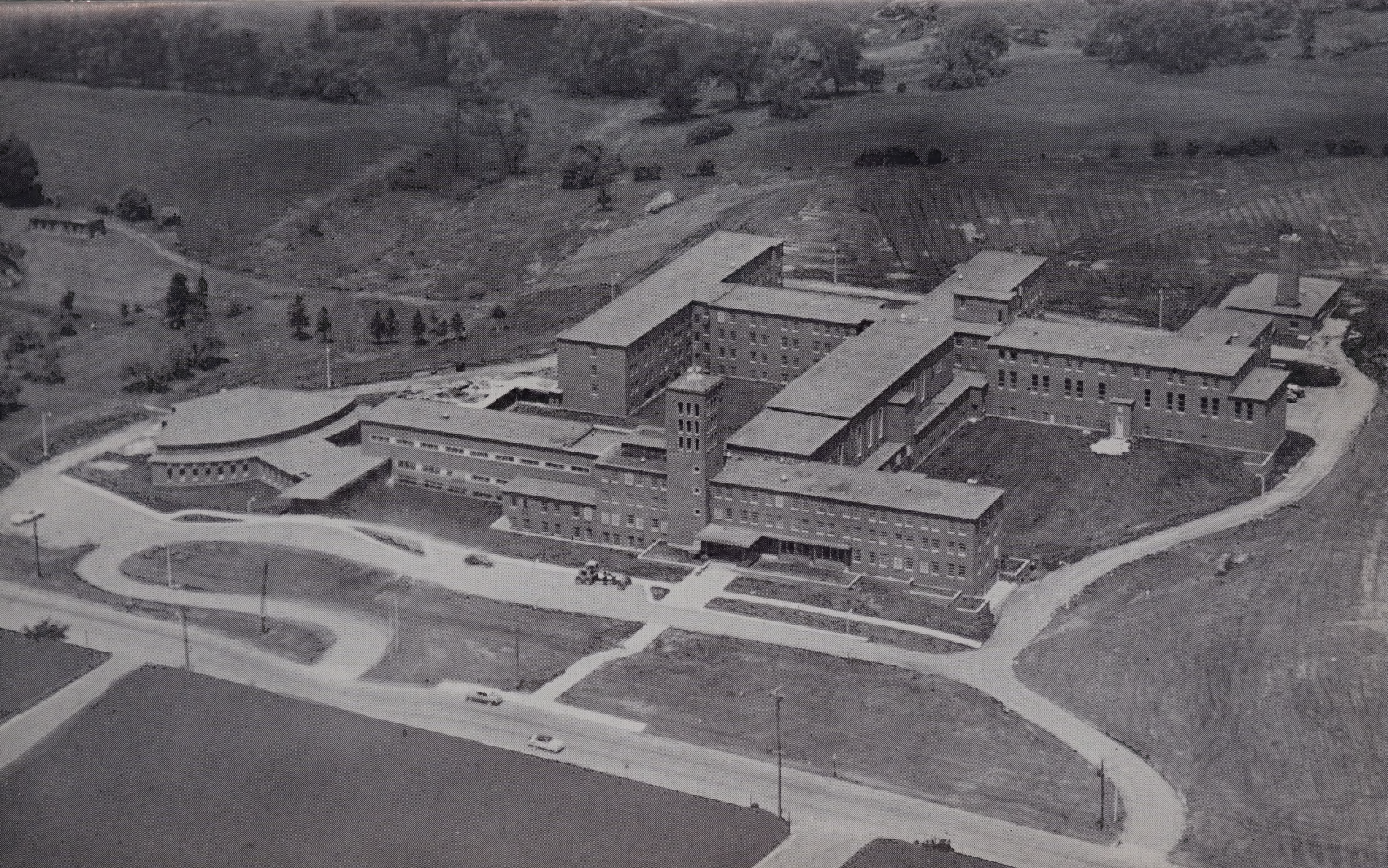
I know the sacrifices which are going into it. I know their desire to help us do our pastoral work better and better and to give to God a people acceptable to Him.

It is a particular privilege to have with us today the successor of St. Dominic. It is his first visit to our country. We welcome him and assure him that his sons in religion are doing a mighty work among us, which binds us so closely to them that we are anxious to show them our appreciation whenever the occasion comes.

To Archbishop Binz today we tender also our congratulations, because we know that this House of Studies has helped to realize a main desire of his pastoral heart. Dubuque and its Province have their Seminary and the unique arrangement for the teaching of the Sacred Sciences here must give him and his Suffragans the deepest satisfaction and comfort.

May St. Dominic live always in this House to guide his sons in doing what he would do had he lived his mortal life in our times rather than in his century.

✠**Samuel Cardinal Stritch**
Archbishop of Chicago



THE NEW HOUSE OF THEOLOGY
St. Rose of Lima Priory, Dubuque, Iowa

CHRONICLE

Dedication of St. Rose Priory

The world's largest Dominican House of Theology was dedicated in Dubuque, Iowa, on June 4. The solemn blessing of the new building was performed by His Excellency, the Most Rev. Leo Binz, D.D., Archbishop of Dubuque, while the solemn Mass of dedication was celebrated by His Paternity, the Most Rev. Michael Browne, O.P., S.T.M., Master General of the Order of Preachers. Father Browne was assisted by the Very Rev. John A. Driscoll, O.P., S.T.M., American assistant to the Master General, as deacon, and the Very Rev. Anthony A. Norton, O.P., S. T. Praes., prior of the new house of theology, as subdeacon.

In a sermon following the Mass, His Eminence, Samuel Cardinal Stritch, Archbishop of Chicago, who presided at the ceremonies, pointed to the need for profound theological scholars in the United States. Speaking before eight hundred guests in the priory chapel, the Cardinal stated that since theology is the keystone of Christian education, other institutions of Catholic learning, from the kindergarten to the university, must look to the House of Theological Studies for help and guidance in imparting a unified and ordered view of revealed truth. The Cardinal's address is published in this issue of *Reality*.

The afternoon ceremonies included a dinner for the clergy and invited guests in the large refectory of the new edifice. Among the after-dinner speakers were His Eminence, Cardinal Stritch, Archbishop Binz, and the Very Rev. Edward L. Hughes, O.P., S.T.M., Provincial of the Province of St. Albert the Great.

At the dinner, the Master General conferred upon His Excellency, the Archbishop of Dubuque, the degree of doctorate of Sacred Theology from the International Studium of the Order in Rome, the *Angelicum*.

Testifying to the nation-wide, and even world-wide interest in the new priory were special guests at the ceremonies, including Their Excellencies the Most Rev. Henry P. Rohlman, D.D., retired Archbishop of Dubuque; Finbar Ryan, O.P., D.D., Archbishop of Port of Spain, Trinidad; Edward F. Hoban, D.D., Archbishop of Cleveland; William A. O'Brien, D.D., Auxiliary Archbishop of Chicago; Ralph L. Hayes, D.D., Bishop of Davenport; Joseph C. Willging, D.D., Bishop of Pueblo; William P. O'Connor, D.D., Bishop of Madison; John P. Treacy, S.T.D., Bishop of La Crosse; Joseph M. Mueller, D.D., Bishop of Sioux City; Edward C. Daly, O.P., S.T.M., Bishop of Des Moines; Charles H. Helmsing, D.D., Auxiliary Bishop of St. Louis; Loras T. Lane, D.D., Auxiliary Bishop of Dubuque; and the Right Reverend Dom Philip O'Connor, O.C.S.O., Abbot of Our Lady of New Melleray.

Distinguished visiting Dominicans were The Very Rev. Fathers Hilary Carpenter, O.P., Provincial of England; Thomas E. Garde, O.P., S.T.M., Provincial of Ireland; Albert E. Ariza, Provincial of Colombia, South America; Dalmatius Marrin, O.P., Provincial of St. Joseph's Province; Thomas M. Rondeau, O.P., Provincial of Canada; Joseph Fulton, O.P., Provincial of Holy Name Province; Hilary Albers, O.P., former Provincial and present Apostolic Visitator of Ecuador; Cyril Burke, O.P., Vicar of the Master General in Japan; Raphael Gallagher, O.P., S.T.M., Secretary of the Apostolic Delegate, the Most Rev. Amleto Cicognani; and Ferrer Smith, O.P., S.T.M., Regent of Studies, Province of St. Joseph.

Representing their Orders at the dedication were the Very Rev. Fathers Neil Parsons, C.P., Provincial of the Congregation of the Passion; Leo Burns, S.J., Provincial of the Milwaukee Province of the Society of Jesus; Lawrence G. Mack, S.V.D., Provincial of the Society of the Divine Word; Clement C. McHale, O.S.A., Provincial of the Order of St. Augustine; and Innocent Swoboda, O.F.M., representative of the Very Rev. Pius Barth, O.F.M., Provincial of the Order of Friars Minor.

Also in attendance were the Mothers General of twenty-three congregations of Dominican Sisters in the United States, and the superiors of many other religious congregations of women. About six thousand visitors viewed the new priory on the three days during which it was open to the public.

The new priory, under the patronage of St. Rose of Lima, can house one hundred fifty students, forty young fathers, fifteen laybrothers, and

twenty-five professors. Designed to meet the special needs of a Dominican House of Studies, the new St. Rose Priory is built in the modern style of architecture called "American Stark." It utilizes red brick facing with awning type aluminum windows and aluminum exterior doors. A high chime tower with a four-faced clock is placed next to the main entrance. The building, which comprises seven main wings, provides more than five acres in floor area. The *Aula Magna* has seating accommodations for five hundred thirty-two, while there is room for two hundred twenty-five in the lay chapel.

At the beginning of the next semester, the house will be occupied by our Dominican fathers and brothers, and a new era will begin for Dubuque and the Province of St. Albert the Great.

Other events

On February 17, 1956, the eve of the 500th anniversary of the death of Fra Angelico, O.P. (Feb. 18, 1456), the Rev. Angelico R. Zarlenga, O.P., delivered a lecture on his life and art to the students of St. Rose Priory, Dubuque, Iowa. Father Zarlenga, himself an artist and a member of the Province of Rome, used color slides to illustrate the three main periods of Fra Angelico's art. On April 13, Father Zarlenga repeated this lecture for the faculty and students of the Dominican House of Studies, River Forest, Ill.

In honor of St. Thomas Aquinas, a program was held at St. Rose Priory on March 6 under the direction of the Rev. L. B. Cunningham, O.P. Both the Dominican students from St. Rose and the archdiocesan seminarians from Mt. St. Bernard Seminary were present. Bro. Justin Murphy, O.P., acted as Master of Ceremonies. Mr. John McClean of Mt. St. Bernard delivered a paper on "St. Joseph and the Church" which is published in this issue of *Reality*. Bro. Melchior Wyss, O.P., and Bro. Ephrem Marieb, O.P., were defendant and objector respectively, in the traditional Solemn Scholastic Disputation. *Matrimonium Sancti Joseph cum Beata Virgine Maria est primum principium ac fundamentum totius theologiae de Sancto Joseph,* was the thesis defended.

At River Forest on the same night, the thesis *Scientia naturalis, una existens, est species atoma, sese quidem extendens inde a primis corporum naturalium principiis usque ad eorum ultimas differentias* was debated by Bro. Matthew Hynous, defendant, and Bro. Kilian O'Malley, objector.

Bros. Donald Pikell and Fidelis Walker presented a paper entitled "Toward the Definition of the Atom." The *a cappella* choir sang several numbers, including an original cantata in honor of St. Thomas, "And Wisdom Spoke," composed by Bros. Boniface Perry and Malachy Quinn.

Dr. E. M. K. Geiling, Ph.D., head of the Department of Pharmacology of the University of Chicago, lectured to the students at River Forest on March 23. He showed slides of the whale and gave an account of the scientific hunt for the whale's pituitary gland. The Rev. I. M. Bochenski, O.P., Ph.D., S.T.D., Visiting Professor at the University of Notre Dame, was another guest lecturer. On March 7, Father Bochenski spoke on the present-day scene in philosophy: *current trends and thinkers developed in the past ten years.*

On March 27, Father Philip Hughes, noted historian of the Church, addressed the Dominican students of St. Rose Priory and the seminarians from Mt. St. Bernard Seminary, Dubuque. His subject was the importance of Church History in the training of the student for the priesthood. He emphasized four periods of history as contributing greatly to an understanding of the present world situation: 1) the first three centuries of the Christian era; 2) the thirteenth and fourteenth centuries; 3) the Reformation; 4) the period surrounding the French Revolution.

During Easter week, professors of the Studium in Dubuque and of the Studium in River Forest attended and participated in the annual national conventions of the N.C.E.A., the A.C.P.A., and the S.C.C.T.S.D. Father T. C. Donlan, O.P., S.T.D., was elected President of the S.C.C. T.S.D. for the year 1956-57.

The finals of the second annual St. Vincent Ferrer Oratorical Contest were held on Friday evening, April 6, at the House of Studies, River Forest. The Very Rev. E. L. Hughes, O.P., S.T.M., Provincial, the Very Rev. L. F. Vander Heyden, O.P., P.G., and the Rev. S. F. Redmond, O.P., acted as judges. They awarded the first prize to Bro. Kilian O'Malley, O.P., and highly commended the other finalists: Brothers Roger Alcorn, George Nintemann, Innocent Hartman, Conrad McElroy, and Mark Leuer.

To promote further zeal for preaching in the students, a Triduum of sermons was preached at the House of Studies on April 7, 8, and 9 by the Rev. Matthew C. Breen, O.P., head of the Northwestern Mission Band. On the feast of St. Vincent Ferrer, April 10, the Rev. Augustine Rock, O.P.,

delivered a sermon at the Solemn Mass which stressed the qualities of a preacher: a mind filled with doctrine and a heart filled with love for souls—a love that will lead to an understanding of their needs and problems.

On May 11, Yves Simon, Ph.D., currently on the Comittee of Social Studies at the University of Chicago, spoke to the students of the River Forest Studium on "The Impact of Science on Culture." Doctor Simon first defined the scope of science and culture and then viewed three aspects of the problem: science and common sense, the deterministic and dualistic approach to man and nature, and the constitution of culture.

On May 12, the Albertus Magnus Lyceum for Natural Science sponsored a *Colloquium* on the teaching of natural philosophy and modern science. Sessions were held in the morning and afternoon, and were attended by members of the Lyceum Staff and invited guests, among whom were the Rev. Augustine Wallace, O.P., Professor of Natural Philosophy at St. Rose Priory, Springfield, Kentucky, the Rev. Donald McMahon, O.P., Lector *Primarius* at the same Priory, the Rev. Melvin Glutz, C.P., and the Rev. Fredrick Sucher, C.P., both of Des Moines, Iowa.

The Rev. Jude R. Nogar, O.P., of the Pontifical Faculty of Philosophy, River Forest, attended the Seventh Annual Minor Seminary Conference held at the Catholic University, Washington, D. C., from May 11-13.

On May 25, His Paternity, the Most Rev. Michael Browne, O.P., on his first visit to America and to St. Albert's Province, was solemnly received at the Dominican House of Studies, River Forest, Ill. Fathers from Fenwick High School, St. Vincent Ferrer's, and St. Pius Priory augmented the community for the Master General's address in the evening.

Ordination to the Sacred Priesthood took place at St. Rose Priory, Dubuque, Iowa, on May 26. His Excellency, the Most Rev. Leo Binz, D.D., Archbishop of Dubuque, conferred the priestly dignity upon the Rev. Jude McGovern, O.P., the Rev. Hyacinth Maguy, O.P., the Rev. Emmanuel Holzer, O.P., the Rev. Philip Cantlebary, O.P., the Rev. Bartholomew Ryan, O.P., the Rev. Kilian Downey, O.P., the Rev. Alphonsus Mainelli, O.P., the Rev. Charles Norton, O.P., the Rev. Cyril Fabian, O.P., and the Rev. Chrysostom Geraets, O.P.

His Excellency, the Most Rev. John J. Mitty, D.D., Archbishop of San Francisco, raised to the priesthood seven other members of St. Albert's Province on June 16 in St. Mary's Cathedral, San Francisco, Cal.: the

Rev. Joachim Miller, O.P., the Rev. Daniel Roach, O.P., the Rev. William Bernacki, O.P., the Rev. Ignatius Campbell, O.P., the Rev. Victor LaMotte, O.P., the Rev. Sylvester MacNutt, O.P., and the Rev. Celestine Walsh, O.P.

On June 2, the Master General was solemnly received at St. Rose Priory, and on the following day at its annual Commencement Exercises, Loras College, Dubuque, Iowa, conferred on him an honorary doctorate of laws.

Archbishop Finbar Ryan, O.P., Primate of the British West Indies, was an honored guest at St. Rose Priory during its dedication ceremonies and several days following. He later visited the River Forest House of Studies.

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